# packaging



Nominated for Packaging's Hall of Fame. Story on Page 104

September 1950

# POLYETHYLENE

A Field-Tested SEAM ADHESIVE

TULFLUX TURAF

POLY-LOK is a ready-to-use, cold 'resyn' seam adhesive. For fabricating multi-wall and specialty bags from polyeth elene-coated kraft stocks. Combines high solid content with low viscosity. Machines cleanly on direct roller application. Tacks immediately even at the rate of 100 ten-pound bags a minute. Dries to a transparent, light gray film that is unaffected by variations of temperature or humidity. Ages without air-blistering.

POLY-LOK adhesive seams withstand hot calcium oxide at  $250^{\circ}$  F . . . food locker temperatures down to  $-20^{\circ}$  F . . . protect food flavors . . . keep hygroscopic products from coalescing.

POLY-LOK is non-flashing . . . practically odorless . . . easily cleaned from glue pots with kerosene, toluene or naphtha . . . and it does not contain fast evaporating solvents.

POLY-LOK samples and technical data sent on request. Ask about other National adhesives for bonding polyethylene to bleached kraft, foil, burlap or polyethylene.



PACKAGING

These products, which were once bothersome or impossible to handle, are now being successfully packaged in multiwall bags lined with polyethylene-coated paper:

Asphalt sealing compounds

Fertilizers

Silica gel

Resins

Magnesia

lon-exchange resins

Phosphates

Special cements

Humus

Calcium Chloride

Peat moss

Caustic soda

Beta naphthol

Brown sugar

Cellulose acetate

Urea resins

Compost

Quick lime

Powdered milk

Polyethylene resin

Vinylite resin

Detergents

Meat trimmings

Mono-sodium phosphate

270 Madison Ave., NEW YORK 16; 3641 So. Washtenaw Ave., CHICAGO 32; 735 Battery St., SAN FRANCISCO 11; and other principal cities. In CANADA: National Adhesives (Canada) Ltd., TORONTO and MONTREAL. In ENGLAND: National Adhesives, Ltd., SLOUGH.



SEPTEMBER 1950

# Modein packaging



Vol. 24 No. 1 September 1950

#### GENERAL

- Everything but the squeal 89

  That's what the meat packers are putting in packages these days, spurred by self-service competition for brand-name favor.
- Acetate and flowers

  Carter's keys lingerie colors to the package decoration and scores two successive hits.
- War and packaging—where do we stand? 98
  While national policy painfully evolves,
  packagers can examine indications on when
  and where a wartime economy may pinch.
- Waxed-paper imprinter

  A long-standing marking problem is solved with device that hot stamps date and price from a transfer ribbon.
- Lux Flakes

  This month's nominee for Packaging's Hall of Fame pioneered packaged flaked soap and created a three-letter trade name and poster package format which on its 50th birthday is still a leader.
- Metallics for corrugated

  Many packagers are finding new display effectiveness in shipping cartons printed with colorful, tinted, metallic inks.
- Design Histories

  Hexagonal window cartons for argyle-sock
  yarn . . . dessert cartons featuring a photographic series of celebrities . . . ice-cream
  carton with appetite appeal . . . quality labels
  for quality wines.
- Pie in the window
  The lock-tab tray is adapted to a simple window carton, with spectacular sales results.
- Westinghouse's application of safe transit pre-tests has dropped damage rate on electric ranges from 18 to 0.6%.
- Packaging Pageant

  Doll-shaped squeeze bottle for children's cologne . . . foil-wrapped bread . . . twist tube for shave cream . . . mirrored case for make-up . . . and other ideas of the month.

- Push-button box maker 123

  High-production machine adopted by Western Electric meets need for shipping cartons
  made to size on the spot for special needs.
- Fibre drum for nails
  U. S. Steel subsidiary finds impressive savings and convenience in newly developed, stout, metal-end container.
- Display Gallery

  Self-demonstrating counter unit for knife sharpener... floor stand for beer... paper-board cut-outs for promoting paints... other merchandisers for packaged products.
- Directive selling

  How to suit the package to the purchaser is demonstrated by Mary Dodge's diverse containers for popcorn confections.
- 12th Packaging Institute Forum 132
  Record attendance expected at Hotel Commodore, Oct. 23–25, for enlightenment on packaging problems entailed by the snow-balling national mobilization effort.

### TECHNICAL

- QM container problems

  A timely report on military-packaging questions on which help from industry technicians is now urgently needed.
- Squeeze-bottle tests

  The relation of wall thickness to permeability rates of polyethylene bottles. By A. R. Nielson and J. H. Parliman.

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**Questions and Answers** 

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Wallpaper Border Rolls in a wide assortment of styles, carried in three sizes, are among the many well-known products of United Wallpaper, Inc. Formerly, these rolls were packaged entirely by hand—a slow and expensive process. Cartons were set up, filled and closed manually; then the individual style name and number were imprinted in still another hand operation. With growing volume on this popular product, United Wallpaper needed immediate relief from the high costs and other deficiencies of this kind of handling.

# REDINGTON'S answer: Type 28 Cartoner with Imprinting Mechanism

Redington's engineers selected the Type 28 Cartoner to solve this packaging problem for three basic reasons: 1) It makes the whole cartoning operation entirely automatic from intake of the product to discharge of the finished package; 2) It is easily and quickly adjustable from one size roll to another—1\%", 3" and 4" rolls are packed. 3) Its guaranteed operating speed is 150 a minute, and it is capable of even higher production.

In operation, attendants place the border rolls into the individual pockets of the cartoner's intake conveyor. Cartons in collapsed form, just as received from the manufacturer, are stacked in a magazine. The machine feeds a carton from the magazine, expands it into shape, inserts a roll, and closes the carton by gluing the end flaps. Should an operator miss filling a conveyor pocket, no carton is fed from the magazine—no empty carton can reach the shipping room.

While the cartons are thus being automatically handled, a practical printing mechanism prints the style name and number of the roll on the end flap of the package. Change of copy is quick and easy.

The net result of changing over to this Redington installation has been to give United Wallpaper an attractive, securely sealed package, produced at higher speeds, and at a cost which is only a fraction of former figures.

#### What's Your Cartoning Problem?

Whether it's simple or complex, routine or unique, large or small output, 53 years of REDINGTON experience with pockaging in many fields can help you. Write us your story, our skilled engineers will be glad to give practical advice, estimates.

E.B. ~ since 1897 ~ REDINGTON

CARTONING
WRAPPING

CO. 110-112 S. Sangamon Street, Chicago 7, Illinois



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NOBODY HAS SAID IT BETTER than Steve Mayham of the Toilet Goods Assn., who wrote to his members the other day as follows:

"... It seems apparent that many people are indulging in scare buying or are seeking to accumulate and hoard goods which may be scarce in case of a serious effort to mobilize our industrial forces . . .

"At this time the association desires strongly to recommend to its members that they do not begin panic buying and that they do not seek to buy in abnormal quantities. To do so may not only bring on rationing . . . but it may create artificial scarcities and abnormal rises in prices which would hurt the very people who are indulging in purchasing for an abnormal inventory. The association suggests the following four things to its members:

"1. Do not buy or seek to buy abnormal quantities of any materials or supplies. Especially do not rush out to purchase items which were scarce during World War II, some of which are very unlikely to be scarce in case of a serious emergency

"2. Maintain good but not excessive inventories of raw materials and of finished products.

"3. Do not hesitate to cut down the size of abnormal orders reaching you (from your customers).

"4. (To suppliers) we urge that you be cautious in filling abnormally large orders sent you by the industry.

"While some shortages and some abnormal price rises may appear from time to time during the next few months, the situation with respect to these can only be made far worse by panic buying on the part of either manufacturers or distributors. It is not only our patriotic duty but it is the essence of sound business at this time to proceed with our purchases and our sales in as nearly normal a manner as possible."

We think that's sound advice. This is an opportunity for business to demonstrate self discipline.





# for HEALTH and BEAUTY... FOOD and DRINK investigate METALAM

For flexible packages, METALAM outshines other materials in protection, sales-provoking attractiveness, and fast, economical handling. Leading merchandisers select this versatile lamination of film and foil because of:

Absolute protection for dry items, powders, pastes and liquids, especially for "thirsty" contents. METALAM is air-tight, light-tight, moisture-vapor-proof.

Sales impact gained from brilliant, multicolor printing on the shining film surface, encouraging self-service and display.

Easy opening in any size-small, single

units, multiple-packed containers, or large quantity packages.

High-speed handling on modern automatic equipment which forms, loads and seals the package at low cost. Light weight cuts down bulk, reduces shipping charges.

#### Investigate METALAM

These qualities recommend Metalam as a versatile packaging material for widely differing varieties of products. Ask us for samples and suggestions on how Metalam can improve your packages. The Dobeckmun Company, Cleveland 1, Ohio. Berkeley 2, California.

Branches et: Atlanta, Boston, Chicago, Detroit, Los Angeles, Milwaukee, New York, Philadelphia, Portland, St. Leuis, St. Paul and Seattle. Representatives everywhere.



# BETTER TRANSPARENT BOXES

Produced Rapidly . . . Economically



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DRAW PRESS in air-hydraulic model, forms seam-less cylinder containers and covers up to 4" diameter.

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CYLINDER BEADER for cyl-





ER Makes 180° fold. Attachment can be supplied for 90° creasing.



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DUPLEX THERMOBEADER for beading two parallel edges of sheet material at high speed.



CYLINDER FABRICATORforms and accurately then welds, lap joint cylin



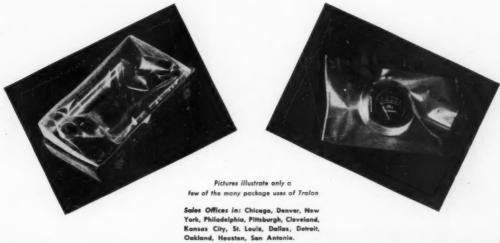
WRITE TODAY for descriptive literature giving full giving full details about TABER machines and how they can help you increase output, improve quality and reduce costs of plastic fabrication.

ASTIC MACHINE DIVISION TABER INSTRUMENT CORPORATION North Tonawanda, N. Y.

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CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS. ACETATES, FOIL, GLASSINE

SEPTEMBER 1950

# lts a sweet package -





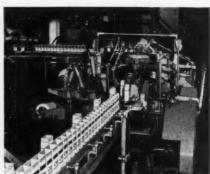
YES, a sweet package—and we don't mean only the contents. That's tops, as every one knows—a product of the California and Hawaiian Sugar Refining Corporation, Ltd., one of the West Coast's greatest, most highly regarded enterprises. We're talking about the way C & H protects its fine quality from refinery to table—while keeping packaging costs down to rock bottom.

They do it — as so many other leading producers of packaged goods do — with Pneumatic machines. They use Pneumatic's famed double package maker to produce a package within a package — for double protection. They fill and seal their container with Pneumatic equipment, too. They wouldn't do it any other way, for the best of reasons — their experience has proved that Pneumatic machines operate more smoothly and more efficiently.



Mr. George W. Aljian, Director of Purchasing and Packaging, California and Hawaiian Sugar Refining Corp., Ltd., states: "One cannot overlook the fact that any progress along packaging lines has been possible only with the cooperation of outstanding and progressive organizations such as Pneumatic Scale Corporation. No one marketer of packaged products can expect to successfully advance without the assistance of those suppliers who devote time,

effort and techniques to assist the customer to produce the strongest and best looking package at a minimum of cost."



Above: Installation of Pneumatic packaging machinery at C & H's plant in Crockett, California.

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue; Quincy 71, Mass. Branch Offices: New York: Chicago; San Francisco; Los Angeles; Seattle.

PNEUMATIC

PACKAGING AND BOTTLING MACHINERY

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The Republic seal symbolizes the ultimate in quality and service.

All our efforts are directed toward the manufacture of *one* product — a top quality plain aluminum foil for further fabrication by customers into eyeappealing and protective bags, wraps, labels, and other foil specialties.

The direct personal character of our mill service permits maximum efficiency in handling your requirements for plain foil, and if your needs are for converted foil products, let us direct you to sources of these materials.

Seal made by F. E. Mason & Sons Batavia, N. Y.



# Republic Foil & Metal Mills INCORPORATED DANBURY, CONNECTICUT

s Offices: 209 W. Jackson Blvd., Chicago 6, III. 666 Mission St., San Francisco 5, Cal.

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Leading Manufacturers of Daily Toilet Necessities Recognizing That Fact,
Give Preference to...



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HIGHER VARNISH GLOSS
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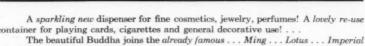




Exessisite IMPERIAL



Distinctive POWDER BOX



container for playing cards, cigarettes and general decorative use! . .

The beautiful Buddha joins the already famous . . . Ming . . . Lotus . . . Imperial . . . and other fast-selling, profit-swelling re-use packages that have won national recognition for Amos . . .

> 8 1/4 " high 6 3/8" wide 4 5/8" deep! Unique swive! construction! Distinctively engraved in Oriental motif... Antique Ivory, Jade Green, Chinese Red...

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> Write for our new 52-page booklet, picturing in full color AMOS facilities—showing many parts and products pioneered in many

Injection Molding Specialists . . . 8 to 120 ounce machine capacity





For FRUITCAKES, etc.





THE INDUSTRY'S Leading MOLDERS OF Distinctive PLASTIC PACKAGES ...



New protective coating standards are easily set with a Knowlton Heavy Duty Coating machine. Applies smooth, uniform coating of pump-fed paraffin, wax or similar materials to all types of corrugated and solid fibre containers. Further, will coat one or both sides in one operation. Fully adjustable to apply coatings of any desired thickness. Split coating collars (2" or 3" width) can be furnished to obtain ancoated flap sections. Electric or steam heated. Thermostat control optional. Users acknowledge that Knowlton Heavy Duty Coating machine is not surpassed for efficient and economical production.

KNOWLTON ALSO MAKES.... these coating machines for all other kinds of paper board stock. Knowlton's light type machines are furnished in 34" and 45" sizes for lighter weight boards.

#### VERTICAL STROKE SLOTTING MACHINE

Where special slotting jobs come up often—especially short runs—the 100-inch Knowlton Vertical Stroke Slotting machine will turn them out faster and more economically. Quickly adjustable and set up, fast and accurate change-overs. Open frame design enables speedy changes in cutting blanks and knives. This Slotting Machine has a host of features worth an inquiry, for container makers seeking lower costs.



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CHICAGO

TORONTO, CAN.

H. W. BRINTNALL CO.

ROCHESTER, NEW YORK



label in actual use on Old South Orange Juice.

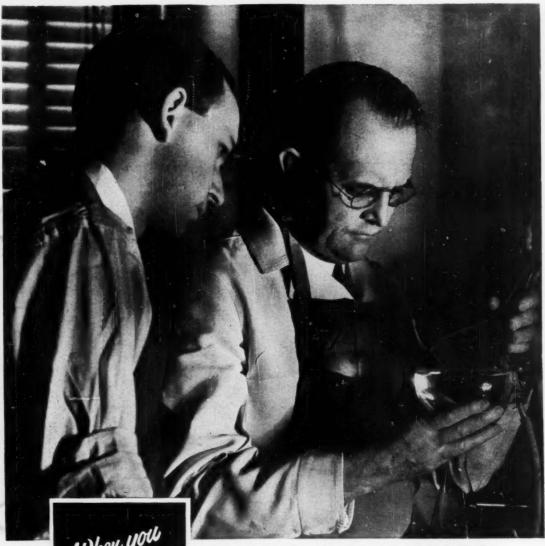
stays on and stays bright through frosting and defrosting. Let us show you, on your own product, how Reynolds Aluminum packaging can give you

better protection and/or display. Reynolds Metals Company, Louisville 1, Ky.



# REYNOLDS ALUMIN

SEPTEMBER 1950



When you want the BEST to the BEST

# And for Packaging it's GLASS

The transparent glass package displays your products with all their colorful eye and appetite appeal. High in chemical durability, it does not change their taste or aroma, will not rust, corrode or leak. Easy to open, easy to use, easy to reseal to protect unused portions, it makes the most convenient package. It lends itself to individuality in size and shape, hence is adaptable to any product. Preferred by consumers because it is sanitary and convenient . . . by retailers because of its sales and merchandising advantages. Select your source of supply as carefully as you would a surgeon, attorney or other specialist. Anchor Hocking Glass Corporation, Lancaster, Ohio.



# Anchorglass\*

#### ICE-BOX JARS

These light-weight Anchorglass widemouth Ice-Box Jars are designed especially for speed in packaging, economy, easy accessibility to contents and display in packaging and merchandising semi-solids such as peanut butter as well as solids like pickles, olives and other products. Their reuse value makes them especially attractive to housewives. Anchorglass Ice-Box Jars are the result of carefully controlled raw materials, consistency in manufacture, uniform glass distribution, accurate annealing, quality control through laboratory tests and inspections. They're available in 8 and 16 ounce capacities. But regardless of what you pack there are Anchorglass Containers in styles, capacities and colors that will meet your requirements.

# ANCHOR\*

C.T. CAPS

For dependable airtight, leakproof and economical sealing of food products not affected by bacterial decomposition use Anchor C.T. Caps. Their scientifically designed deep-rolled thread improves holding qualities; permits ample clearance over the glass thread; prevents binding and gives spin-on action which results in fast, low-cost application. Deep, coarse knurls avoid interference with the top of the glass thread, permit free radial movement of the liner and provide a firm gripping surface for application and removal. Anchor C.T. Caps are available in 20 sizes from 18 to 120 mm. Write us for more detailed information on the advantages and economies of Anchorglass Containers and Anchor C.T. Caps.

\*Reg. U. S. Par. Off.

For the BEST in Glass Packaging it's

# ANCHOR HOCKING #

"THE MOST FAMOUS NAME IN GLASS!"

an Junproved Package?

An Inproved Package?





You can do BOTH - with a SCANDIA\* Bundler

THE REASON BEHIND
THE NEW VITALIS BUNDLE:

Bristol-Myers found that bundling in small units was an extremely welcome packaging method for the wholesalers and distributors. BUNDLING—for convenience to distributors, whole-salers and retailers—reaches a peak of efficiency on the new SCANDIA bundling machines. Using printed kraft paper in the roll, eliminating end labels, Scandia makes appreciable savings in materials, produces a stronger bundle with "locked-in" folds. Automatic feeds and accumulator available for

BUNDLING 3, 6, 12, and 24 PACKAGES

—and SCANDIA produces from 20 to 60 bundles per minute . . . every minute!

\*made under Bronander patents

Scandia

MANUFACTURING COMPANY

NORTH ARLINGTON

NEW JERSEY



# Blown Plastic Bottles



### The finest salesmen your products can have!

#### STOCK BOTTLES

- Lightweight—Unbreakable—Polyethylene available with or without "squeeze" features. Bottles are available in 2-4-6-8-ounce sizes.
- In clear plastic or wide range of colors.
- Stock atomizers with stream-spray or sprinkler features.
- Stock closures and tubing.

Since we make all of these parts, we can facilitate our service to you as a single source of supply.

For more information on our custom moiding service, or for a free sample stock bottle, write us or our sales agent today.

#### SPECIAL BOTTLES

By combining skillful craftsmanship and sound engineering, we are producing specially blown thermoplastic bottles with or without "squeeze" features and in many shapes and sizes. This Helene Pessl "LITTLE LADY" and Manon Freres "PUPPY DOG" are typical examples. We also make closures and atomizers to your special needs.

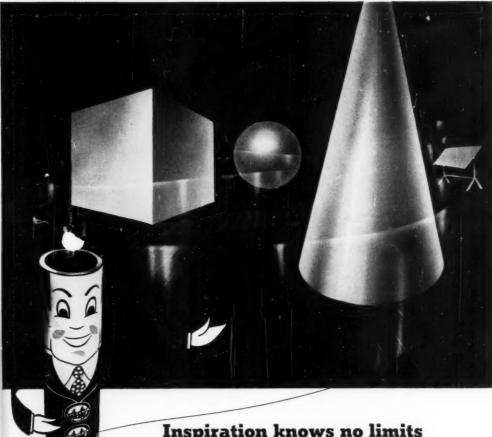
Our bottles are manufactured under Patent number 2,515,093. Other patents are pending.

ELMER E. MILLS CORPORATION

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# Inspiration knows no limits with SYLVANIA CELLOPHANE

Whatever form your packaging takes—there is a Sylvania Cellophane to give it sparkling beauty and indispensable protective qualities at low cost. Sylvania presents a whole family of truly transparent films, each tailor-made for a particular job.

It comes with controlled moisture protection—in different gauges. It heat seals strongly and instantaneously either in handwrapping or on high speed automatic equipment. It can be economically printed on fast rotary presses with lustrous color effects.

Your Sylvania representative will help you choose the one that exactly fits your requirements. Talk over your problems with him or write us mentioning the specific application in which you are interested. Address: Market Development Dept. MP-50

# SYLVANIA CELLOPHANE

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General Sales Office: 1617 Pennsylvania Blvd., Philadelphia 3, Pa. Plant: Fredericksburg, Va.



MODERN PACKAGING



CHICAGO CARTON COMPANY

4200 SOUTH CRAWFORD AVENUE . CHICAGO 32, ILLINOIS

Another Example
OF GARDNER PACKAGING INGENUITY...



# A <u>single</u> carton that rings up <u>double</u>-header sales

One of the soundest strategies of modern merchandising is the "tie-in" sale of related products. Well aware of this, and knowing Gardner's reputation for solving packaging problems, Alfred D. McKelvy Company sent us this "toughie."

Seaforth Shaving Lotion comes in a stoneware jug. Seaforth Brushless Shave Cream comes in a collapsible metal tube. Just offhand, can you think of two products better suited for tie-in selling? Or of two container types less suited for tie-in packaging?

Gardner's solution to the problem was the ingenious "pick a back" carton shown here. Plenty of "extra-ply" protection for flask and tube . . . plenty of "extra-buy" appeal for counters and shelves. (Now, incidentally, all Seaforth single items are packed in eye-reaching Gardner cartons.)

# Maybe we can add a Sales "Extra" to YOUR package

If you have a product that needs an extra pointof-sales push, a product that's hard to package, or a new idea that needs a new packaging idea, get in touch with Gardner. We'll be glad to tackle it. No obligation, of course.

# Make more eyes reach for YOUR product in cartons of COATED LITHWITE\*

More shoppers reach for the bright Seaforth Carton because of the extra eye-appeal of Coated Lithwite, the quality clay-coated board that's white . . . brighter. Colors hold up brilliantly on Coated Lithwite . . . pictures reproduce with true-to-life realism. Rub-resisting. Fade-resisting.

# THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboard, 408 Charles St., Middletown, Ohio

6

on ICL and LTL orders

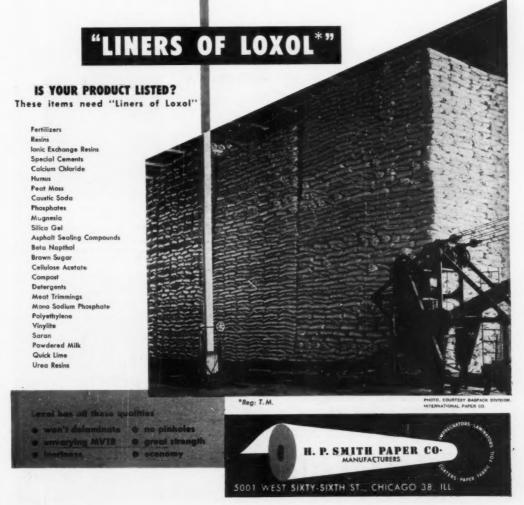
# multi-wall bags are polyethyleneprotected by

It's polyethylene-coated paper . . . and for all practical purposes it's inert and impervious to moisture and grease . . . that's why Loxol has become so popular as an inner ply for multi-wall bags.

Loxol polyethylene-protected liners make multi-wall bags effectively contamination-proof. And what's more, they restrict the gain or loss of moisture and volatiles. Thanks to its inertness, Loxol is ideal for packaging caustics and other products which affect or combine with ordinary container materials.

Loxol gives lower MVTR with less coating . . . because it consists of high tensile strength Kraft, permanently polyethylene-coated by a unique process which eliminates pinholes and prevents delamination. The coating is of uniform thickness, so there's no variation in MVTR.

Presently available on papers of 40# and heavier, with coatings from 1/2 to 10 mils thick, Loxol is used as a multi-wall bag liner by converters in every section of the country. Write . . . and we'll tell you who, nearby, can supply multi-wall bags with polyethylene-protected Loxol liners.



### THE BOTTLE THAT'S GOING PLACES



DOCTORS AND PATIENTS simply squeeze the bottle to treat fungus-infected skin areas with Naprylate Pawder. Application is neat, seniory and economical. Bottle is opaque green. Naprylate is made by R. J. Stresenburgh Co., Rochester, N. Y.



CAPITALIZING ON THE DISTINC-TIVENESS of stock shapes, L'Orle is packaging several of its famous tellerries in flask-shaped Plaxpak bottles. Lightness and unbreakability of this container make it attra-convenient to take on trips. No leaking or spilling.



ANTS IN YOUR PLANTS? Spray-Away kills 'em quick. Just squeeze the unbreekable Plaxpak bettle and ext comes a mist of sure death for bugs. Self-stoemizing bettle is always handy. Spray-Away is product of the Bulb of the Month Club, Chicage 90, III.



NEL, AN ANTISEPTIC POWDER, by Back Products, Detroit 19, Mich., is agregated on with just a squeeze of the Plaxpak bottle. Users will like the way they can apply the antiseptic accurately and gently on cuts, poisse icy and other skin irritations.



WHAT MAN WOULDN'T WANT this new Affred Dunhill kit around wherever he is. Lightweight, unbreakable Plaxpak bettles relieve him of weight and worry. He can breeze through his after shave lotion and talc applications several seconds quicker.



ANY GAL WOULD WELCOME Mary Lewis Spray Deederant. Colorfully packaged in a bright yellow Plaxpak bottle with a green cap, the liquid deederant is applied with a squeeze of the hottle. Fingers stry unscaled — bottle is sofe and light to carry.

There's good reason for the Plaxpak bottle's steadily growing acceptance. It's unbreakable — safe everywhere with everyone. It provides controlled dispensing — new neatness and convenience in product use. It's light — a perfect traveler. It's colorful and quiet. The public appreciates these plus values and wants them. Your product should have them. So investigate the Plaxpak bottle now — a catalog is yours for the asking.

FLAX BLOW-MOLDED PRODUCTS ARE MADE UNDER THE FOLLOWING U. S. PATENTS. 8129239, 2175083, 2175084, 2230189, 2230180, 2260750, 2283751, 2349175, 2349177, 2349178



PLAX CORPORATION, P. O. BOX 1019, HARTFORD 1, CONNECTICUT

Offices in New York City, Syracuse, Philadelphia, Cincinnati, Chicago, St. Louis and Houston



### "There's an awful lot of coffee in Brazil"

 $\dots$  but like hundreds of other good things, coffee needs the help of tailor-made protective papers to bring it roaster-fresh to your home. That's why millions of attractive and economical coffee bags are lined with a special type of Riegel Glassine.

There's a Riegel Paper for almost any requirement you may have in protective packaging... a paper you can depend on for economy and production efficiency. We feel sure we can serve you in the same effective manner we now serve the sales leaders in so many different fields. Write us today and tell us what you want. Riegel Paper Corporation • 342 Madison Ave., N. Y. 17.

\*Permission granted by Valiant Music Co., Inc.,

Riegel TAILOR-MADE PAPERS FOR PROTECTIVE PACKAGING

# This is the SCARF DANCE (NEW Style)

When America's leading scarf makers decided to step up the tempo of their scarf and kerchief sales, they told Shaw-Randall to set the pace.

Visible novelty packaging gives these scarfs and kerchiefs a new irresistible sales appeal beamed at the age groups who buy these prodnets. Wastern Rocking Horse

Why not let Shaw-Randall put your product on the hit parade?

Treasure Chest

Jewel Box

Circus Wagon

SHAW-RANDALL CO., INC.

PAWTUCKET, R. I.

New York Office - 545 Fifth Ave.



**7** OLDING box manufacturers can depend upon PAISLEY FOLDING BOX ADHESIVES to give per-fect performance in all fast automatic folding box ma-chines. Correct, economical and efficient adhesion is no longer a matter of chance. It is rather a matter of science careful laboratory study and analysis by highly trained adhesive chemical engineers.

PAISLEY FOLDING BOX ADHESIVES give you extra benefits. One or more of the following features are obtainable in every PAISLEY FOLDING BOX ADHESIVE you may select:

- (5) Water resistance, when required.
  (6) Grades for heavy waxed butter, cheese, frazes

Clean machining is an outstanding characteristic of all Paisley Adhesives. Laboratory control assures perfect uniformity of product and performance for any specific ma-chine or paperboard gluing operation.

To obtain the proper Folding Box Adhesive to fit your particular requirements, use the coupon below and send for an Adhesive Operation Data Sheet, for your convenience in sending us details of your requirements. Your inquiry will receive prompt attention by the Paisley

#### TEAR OUT . . FASTEN TO LETTERHEAD AND MAIL!

Gentlemen: Please send me your Adhesive Operation Data Sheet and further information on PAISLEY FOLDING BOX ADHESIVES.

BUYER FIRM.

## PAISLEY PRODUCTS INCORPORATED

metal containers....













...are the spice of life for Candy

we also manufacture all types and sizes of containers for any purpose - with a personal interest in designing an attractive package to meet your needs.

#### Quality OLIVE CAN COMPANY Sorvice

MANUFACTURERS . DESIGNERS PLAIN . DECORATED . LITHOGRAPHED METAL CONTAINERS

450 N. LEAVITT ST., CHICAGO 12, ILLINOIS



# Vinylite RESINS PACK BEST!

Yes, fiber containers, packages, boxes coated with VINYLITE Brand Resins can take hot as well as cold foods—solid or liquid. Neither normal hotfood temperatures nor the coldest freezers can impair their protective qualities—recognized more and more widely by processors and consumers, alike. Witness these packages lined with glassine paper coated with VINYLITE Brand Plastics.

VINYLITE Resin coatings resist heat and cold, water, oils, greases, alkalies, and acids. They are tasteless, odorless, and non-toxic.

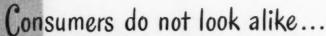
Package designers and manufacturers welcome their economy and efficiency for application to paper, metal, and foil. They are readily heatsealable. They accept color printing and may themselves be in any color. They protect containers from contamination by contents and contents from contamination by containers. They resist penetration by odors, moisture, air.

If you have not investigated VINYLITE Brand Resins and Plastics, as well as BAKELITE Polyethylene, for your packaging problems, call us in. Bakelite representatives will gladly show you what these materials have to offer to reduce costs, improve performance, and increase your business. Just write Dept. JC-55.

Data courtesy Plastic Coating Corporation, Holyoke, Mass., and Sealright Co., Inc., Fulton, N.Y.



BAKELITE DIVISION, Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, N. Y.



# but THEY ALL LOOK

That's why every H-A container
is planned for maximum point of
sale display and to continue
this visual selling in the home.

These light-weight, easy to pack, easy to ship, easy to handle glass containers are planned to mean orders and re-orders for you.

HAZEL-ATLAS GLASS
COMPANY WHEELING





# High Speed Weighing With Superior ACCURACY-



Hy-Tra-Lec is EXCLUSIVE with Wright. This modern weighing system is based on the principles of "positive displacement" and departs from conventional beam or scale methods.

User reports reveal that Hy-Tra-Lec is relatively trouble-free and requires a minimum of maintenance attention.

**ESTABLISHED 1893 - DURHAM, NORTH CAROLINA** SUBSIDIARY OF THE SPERRY CORPORATION

COMPANY SALES OFFICES: JERSEY CITY - CHICAGO - DURHAM CENTRAL REP.: HAL HUDSON EQUIPMENT COMPANY, TOLEDO ANDERSON COMPANY, DALLAS

WEST COAST REP.: KING & ANDERSON, SAN FRANCISCO

EUROPE: SPERRY GYROSCOPE COMPANY, LTD., LONDON

Get Both With WRIGHT'S

Crackers, cookies, pretzels, potato chips, candies. Products like these require accurate, gentle net weighing and filling.

... and to be efficient, the operation must be done at acceptable speeds and with a minimum of labor.

One hundred and twenty five leading food plants have found the answer. Wright's Hy-Tra-Lec Automatic weighers! Where bags are used or manual placement of container beneath discharge spout is desired, they use semi-automatic models. Where rigid containers are used, fully automatic systems are available. Range: one-half ounce to 16 ounces.

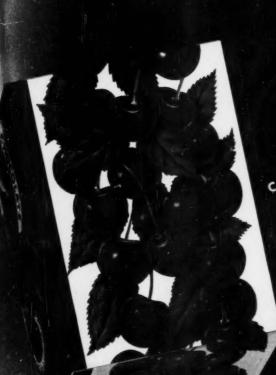
#### PROVEN PERFORMANCE

Time tested. User approved. Repeat orders prove Hy-Tra-Lec's worthiness.

Keep ahead of competition. Reduce your packaging costs with Wright Hy-Tra-Lec net weighing and filling systems. Mail the coupon below now.

-	hinery Company Street, Durham, N. C.
	Please send me latest information on a-Lec Automatic Weighers.
Name	
Company	
Address	
City	State

tempt your customers' tastes..



Chase COLONIAL HOCOLATE COVERED CORDIAL CORDIAL CORDIAL

Cherries



NATURALLY with

# FIDEL-I-TONE\*

PRODUCTS THAT CAN BE PICTURED on packages are a natural for FIDEL-I-TONE . . . the LBP color process that so many are talking about. Chase Candy Company knows that natural pictures sell products and that FIDEL-I-TONE is the right process for those natural effects. This Colonial Cordial Cherry carton is an actual example of the realism and clear detail obtainable on ordinary boxboard.

FIDEL-I-TONE is a thoroughly tested and established reproduction method and is backed by our 75 years of continuous experience in the graphic arts. FIDEL-I-TONE is suitable to almost any kind of packaging paper or cardboard—coated or uncoated. And best of all, it is economical.



FIDEL-I-TONE uses more than twice as many dots per square inch as ordinary processes. This is the secret of that extra realism and finer detail. Color sketches or color photographs alike are no problem for FIDEL-I-TONE.

Smooth, robust solid colors are characteristic of FIDEL-I-TONE inks. No mottled or "grainy" look but s-m-o-o-t-h and uniform.

Note the sharp clean edges of type and other detail! No "squash" or "blur" when FIDEL-I-TONE is specified.



FOIDING CARTONS

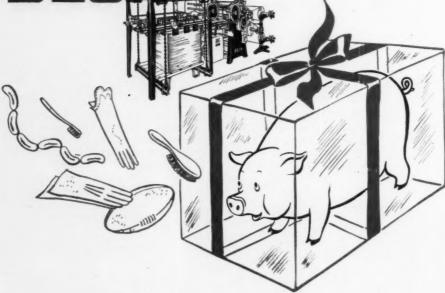
Lord Baltimore Press offers complete packaging service by letterpress, lithography and gravure — as well as FIDEL-I-TONE — Special packaging problems welcomed.

# THE LORD BALTIMORE PRESS

BALTIMORE . . . NEW YORK . . . CHICAGO . . . LOUISVILLE N. Y. SALES OFFICE: 595 MADISON AVENUE, NEW YORK 22, N. Y. Eldorado 5-4180

LOUISVILLE: STARKS BLDG., 4th AND WALNUT STS., 2 - AMherst 1222 . CHICAGO: 333 N. MICHIGAN AVE., 1 - CEntrol 6-1640

# BECK...helps put pigs in packages!



From gloves to brush bristles . . . from sausages to footballs . . . today's little pig goes to market packaged in style and packaged to sell. That's where BECK comes into the picture.

You're sure of sheets sized to your needs when a BECK AUTOMATIC ROLL SHEET CUTTER cuts, counts and stacks your packaging materials. On cellophane or lightweight cardboard the SHEET CUTTER performs quickly, neatly and accurately.

And with a 1950 BECK RAZOR BLADE SLITTER AND REWINDER, you can always count on correctly-sized rolls of the lightweight materials you use.

For package makers, package material converters, package users . . . these BECK machines speed production and slow down costs. But why not challenge our claims? Send envelope-size material samples and let us give you BECK facts and figures to fit your problems.

CHARLES BECK



CORPORATION

PHILADELPHIA 8, PENNA.

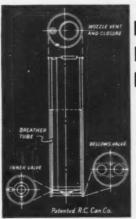


Your own appreciation for your product is quickly reflected in your choice of a container. Why "kill" sales with a bug-duster of questionable design and quality. The new patented R. C. Spra-Can incorporates many exclusive features — specifically designed in answer to past consumer objections to inferior, make-shift dusters. R. C. Spra-Can offers Controlled Powder Pressure . . . Special Clog-Proof Feed Construction . . . Countersunk Nozzle-Vent for spray uniformity . . . Sturdy Bellows Diaphragm built to "take-it," even under roughest usage . . . Moisture-Proofed Stock to assure free pumping action at all times, in all climates.

# 3 GOOD REASONS FOR "DRESSING" YOUR BUG-KILLER IN THE R.C. SPRA-CAN:

- Sprays at Any Angle Upside Down, Sideways.
- Rapid, Non-Binding Bellows
- Uniform Spray No "Puffs" or "Blasts."

Years of constant research and engineering know-how have earned for the R. C. Can Company the title of "Product Tailors" for industry. Why not put your next packaging problem in our hands — your assurance of exacting quality, added sales appeal, and continued customer satisfaction.



# R.C. CAN COMPANY

MAIN OFFICE 103 Chambers St., St. Louis 6, Mo.

Branch Factories: Arlington, Tex.; Rittman, O.; Kansas City, Mo. SALES OFFICES

C. E. DOBSON, 819 Carandelet Bidg., New Orleans 12, La. R. C. CAN CO., 225 West 34th St., New York N. Y. L. C. MORRIS Co., 1125 Spring St., N.W. Atlanta, Ga. S. W. SCOTT, 608 McCall Bidg., Memphis 3, Tenn. E. F. DELINE CO., 224 W. Atlamedia, Deriver 9, Colo.

CAN SUPPLY CO., 1006 W. Washington Bivd., Los Angeles, Colif. C. J. TAUGHER, 1628 W. Wisconsin, Milwaukse 3, Wis.



NO MAKEREADY CHAMPLAIN COMPANY, INC.

Chicago Office: 7 W. Madison St., Chicago 2, III.

ROTOGRAVURE AT ITS BEST

Here are some

advantages of

CHAMPLAIN ROTOGRAVURE

DRYING INK NO PRESS WASHUP

PUSH BUTTON REGISTER CONTROL

MULTICOLOR
PRINTING
ONCE THROUGH
PRESS

**3186** 

-

MODERN PACKAGING



## Milprint's extra touch ...

For you that "extra touch" might be a hit of elegand to add richness to your package and make it stand our against a shelf full of competitors.

Or the right "extra touch" could lift your product a co the year 'round gift class and move it out of retail stores fister.

Perhaps the "extra touch" for you should be a multiple unit package to provide a new merchandising opportunity. It could also effectively call attention to a special promotional offer without requiring a change in your basic package.

Whatever you package, chances are Milprint can suggest that "extra touch" to get extra sales for you. Why not talk it over with your local Milprint man today?

**Thorough!** That's Milprint "follow through" service. We'll create and produce all your printed promotional material to help merchandise your packages.

Rich looking foil box wrappers tell the consumer there's fine quality candy inside. Printed by Milprint.

> No wonder these hams get preferred display. Cellophane overwrap is Milprint ratogravure printed Cellophane.

Milprini littingraphesi, die out steeve makes Gld Monastery e stand-out on the shelf suggests melf as a gift.

gets extra sale

Oló:

USCATE

Milprint INC PACKAGING MATERIALS

General Offices, Milwaukee, Wis. Sales Offices in All Principal Cities

Prived Cellophane, Pliofilm, Accidete, Foll, Glassine, Plastic Films Littingraphed Dissipre, Printed Promotional Material

. This insert Printed by Milprint, Inc.



For over 50 years

discriminating manufacturers

have been building sales

of products which are packaged

in Rowell Containers.

Expert craftsmanship.

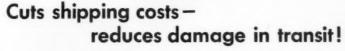
Magnificent color printing.

C.N. Rozvell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N.Y.

Prompt deliveries.

Kimpak Float Packaging





Does your product need super special protection in shipment against shock and vibration—a smooth, soft covering for finely finished surfaces—or simply a material to fill in the voids of an irregular shape?

Whatever your packaging problem, the answer very likely is KIMPAK\* Float Packaging. It's the safe, economical, modern way to protect every kind of product, from tiny vials of liquid gold to the gleaming finish of a mighty diesel locomotive.

KIMPAK creped wadding comes in a wide variety of specifications that cover all Four Basic Methods of Interior Packaging. It's so light, so easy and pleasant to handle, your labor and shipping costs can be measurably reduced. It's clean, white, soft and completely free of abrasive particles. Yet tough, resilient KIMPAK provides superior protection against the hazards incurred in shipping and storage.

Why not discover today how smartlooking KIMPAK gives your product sparkling new sales appeal as well as incomparably safe, sure protection. For further information, look in your classified telephone directory under "Packing Materials" or "Packing Materials - Shipping" or write directly to Kimberly-Clark Corporation, Neenah, Wisconsin.

Visit our booths, Nos. 201 & 203 at the Industrial Packaging and Materials Handling Exposition, Convention Hall, Philadelphia, Pa., Oct. 10-12





"T. W. RES. U. S. PAT. OFF

CREPED WADDING



 Every exposed surface of this finely finished vanity, especially the highly polished top, must be protected against scratching, rubbing, press marking.



2. Sheet of KIMPAK is applied to all finished surfaces. Sheets in correct size or cut from rolls of specified width, minimize inventory requirements.



 Now completely wrapped in KIMPAK, fastened with adhesive tape, the vanity is ready to insert in its corrugate shipping container.

All photographs courtesy of Henredon - Heritage Co., Morganton, N. Carolina.

	EB	ee	BA	AVI	ETI	
-	FR	EE	BO	UNI	LEI	-

KIMBERLY-CLARK CORPORATION Neenah, Wisconsin MP-950 Please send me free, the illustrated KIMPAK booklet, "Float Packaging."

Name	
Firm	
Address	,
C . 7 . S	

# chest x-rays for my employees? ..ridiculous

Not so ridiculous, mister! Chest X-rays may show that people who feel in the "pink" are really suffering from active tuberculosis. In its early stages TB frequently has no symptoms at all.

It now leads all other diseases as the cause of death between the ages of 15 and 34. Tuberculosis kills almost 50,000 Americans every year.

This is shameful ... shameful because it is a disease that can be wiped out if we will all take the first simple step required to wipe it out ... have a periodic chest X-ray.

Tuberculosis costs the United States 1,000,000 working years annually and, for TB Hospital maintenance alone, more than \$1,000,000 in taxes. How could you make a better investment than to lend a hand in helping to rid the country of this scourge!

Post this page on your bulletin board. Let your employees know that the greatest safeguard against TB is excellent health. Active disease does not occur so long as the body's resistance can successfully fight the TB germ.

Let them know that TB is contagious. It is spread through sneezing, coughing and personal contacts.

Let them know that TB is curable, and that the sooner it is detected, the quicker the cure.

Let them know, above all else, they will be doing themselves a favor, their families and community by having their chests X-rayed at least once a year . . . starting TODAY!

Your cooperation can help save lives . . . maybe your own.

the Advertising Council, inc.

A non-profit organization representing all phases of advertising, dedicated to the use of advertising in public service

25 West 45th \$1., New York 19, N. Y

PUBLISHED IN THE PUBLIC INTEREST BY MODERN PACKAGING CORP.



### BBD has a RED INK



#### for Aniline printing on any stock

• EXCELLOPAKE . . . . for CELLOPHANE, GLASSINE, FOIL and other non-absorbent stocks

• HYDROTONE . . . . . for heavy-weight TISSUE, **KRAFT**, SULPHITE and noiseless Pop Corn bag stock

• MAT ACETATE . . . . for all grades of ACETATE

• FOIL-BRITE . . . . . . for METALLIC FOILS

• PREPRINT. . . . . . . for GLASSINE prior to waxing

. KRAFT-ANILINE . . . for KRAFT and SULPHITE

• TRANSLUSTRO . . . . for GLASSINE, and paper stocks

POLY-PAKE. . . . . . for POLYETHYLENE film VINYL-INE . . . . . . for VINYL film

• These BBD inks are also available in full range of standard and special colors.

on packages and converted specialties

Need a red with more snap ... a red that prints cleaner, sharper? Need an ink that gives more coverage per pound . . . that helps insure trouble-free runs? Then specify a BBD RED INK -"tailor-made" to match your color specification . . . to mate superbly with your stock . . . to suit your equipment and operating conditions. For instance: to get brilliant, clear-cut impressions on metallic foils use BBD'S nonbleeding FOIL-BRITE INK. If you print glassine or other paper stocks, obtain lustrous color effects with TRANS-LUSTRO, a transparent dyestuff ink. And, of course, for cellophane BBD'S EXCELLOPAKE INK is unequalled for sparkling, opaque, razor-sharp prints. Ask your nearest BBD office for more information about any of these inks . . . and for printed samples that tell BBD'S

quality story better than words.



#### BONUS for BBD INK users

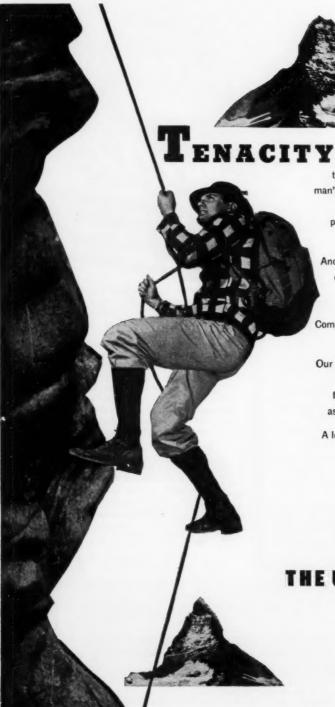
. . our famous "shirt-sleeve" technical service by aniline ink specialists. Let a BBD field man show you-on your own press -how to get better print quality.

## Bensing Bros. and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

401 N. BROAD STREET, PHILADELPHIA 8, PA.

Associated Manufacturing Plants: 81 Albion Street, Wakefield, Mass.; 2358 N. Seeley Ave., Chicago 47, Ill. West Coast Distributor: A. M. Bojanower, 5270 E. Washington Blvd., Los Angeles 22, Cal. Export Division: McLaurin-Jones Co., 22 East 41st Street, New York 17, N. Y.



The firmness, the toughness, the persistence that characterizes man's struggles against the elements.

The obstinacy and singleness of purpose that brings discovery and invention. That's tenacity!

And "tenacity" is the best one-word description of UPACO adhesives.

Born to quality in the famous laboratories of The Union Paste
Company, these adhesives are offered in the widest variety available.

Our tradition of conscientious service in the development of adhesives for all packaging purposes is your assurance of complete satisfaction.

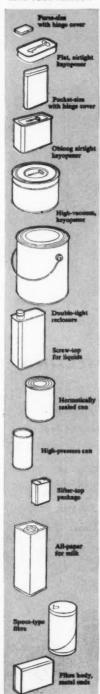
A letter outlining your requirements and problems will receive our prompt attention.



## THE UNION PASTE COMPANY

1605 HYDE PARK AVENUE HYDE PARK, MASSACHUSETTS

WHICH PACKAGE SUITS YOUR PRODUCT?





## WANTED: New customers for a top-notch salesman!

The inside walls of this container are lined with glassine fused with wax to provide a barrier that keeps inside moisture in . . . and outside moisture out.

Primarily, it is an excellent package for *any* dry, powdered product or one needing protection against moisture.

#### You'll run out of fingers!

Start ticking off some of the products for which this container is suitable and watch how the list mounts.

In the food field there's baking powder, crackers, popcorn, potato chips, powdered milks, gelatines, and a variety of cake and biscuit mixes.

In the drug field you can make quite a list, too. It's ideal for bath salts, epsom salts, bicarbonate of soda, insecticides, boric acid, senna leaves, sulphur powder, sodium fluorite, flaxseed and Glauber's salt. In other words, it's a possibility for quite a few dry pharmaceutical products and proprietary remedies.

The container fills fast and ships light. It comes in a wide variety of sizes. It is easy to stack and easy to handle.

#### Can't miss the label!

There's plenty of "front" for your label and it has a tight friction metal top (easy to open—closes snug) with a wide aperture for free pouring or dispensing.

Is your product a new customer for this salesman?









Cut yourself a slice of our experience!

This is our 25th anniversary—which is one way of saying we've had quite a bit of experience in making tubes. For some outstanding customers, as you can see.

It seems to us that where experience counts most in our business is in solving your tube problems so they stay solved. For instance, by eliminating "bugs" before they occur. By keeping uniformity and reproduction so exact that your millionth tube and your first are identically perfect twins.

Yes, we're proud of our 25 years' experience. Prouder still of making it of practical value to our customers!

## SunTube Corporation

181 Long Avenue, Hillside, New Jersey

### how to package a rainbow



Maroon-covered with gold embossing, this Hercules Powder Company sample box is lined with white rayon jersey. Each color chip has its individual niche.

To demonstrate the spectacular color range of its cellulose acetate molding powders, Hercules Powder Company now uses a collection of brilliant sample chips...mounted like jewels in a Miller-built set-up box.

Like other Miller boxes, this one not only cradles the contents, but adds a pleasing background that helps attract the eye. Furthermore, it has the stamina to stand up under constant use as a sample case.

Another point: Miller set-up boxes are ready for use the moment they're delivered to your plant. They can be loaded quickly and easily. All this means fewer operations on your production line, with a consequent saving of manpower.

Whether you're interested in sample boxes or in economical, attractive containers for pharmaceuticals, confectionery, jewelry, novelties, hardware, toys, textiles, or other products . . . call in the Miller representative for fresh ideas and helpful service!



# How Colgate-Palmolive-Peet wrapped up premium profits with VISQUEEN\* film



Bags fabricated by The Traver Corporation and Pre-Pac, Inc.

#### Give us your toughest packaging problem.

Our engineers will be glad to help you solve it—and may save you thousands of dollars. Just mail the coupon!

VISQUEEN film a product of the

#### VISKING

#### CORPORATION

Preston Division, Terre Haute, Indiana In Canada: Visking Limited, Lindsay, Ont.

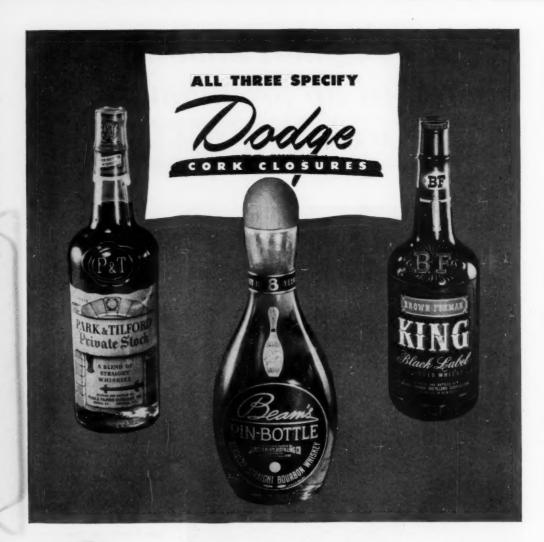
Colgate featured the		
Visqueen label and Visqueen's		
Good Housekeeping		
guarantee.		
Convincing proof of the sell		
ing power your product		
can have, premium-packaged		

Millions of these Visqueen film drawstring bags were sold at retail, each containing 6 bars of Palmolive or Cashmere Bouquet soap.

Convincing proof of the selling power your product can have, premium-packaged in Visqueen film! It has the Good Housekeeping Guarantee Seal—a powerful plus with consumers. It's odorless, waterproof, crackproof. Won't stick. Wipes clean easily. And you can have it in practically any shape or form your product requires. What happened for Colgate-Palmolive-Peet can happen for you, too!

\*T. M. The Visking Corporation

Send complete information on new VISQUEEN method of shipping and packaging.	THE VISKING CORPORATION Preston Division, Box 9R-1410 Terre Haute, Indiana
Attached is outline of our toughest packaging problem. How can VISQUEEN film help us solve it? No obligation.	Name
Let's talk it over.	Сомрану
Dale	Address
lima	CityZoneStale





James B. Beam, Brown-Forman, Park & Tilford—three names known and respected in their field—each uses airtight Dodge Cork Closures. These leading distillers know the value of that extra punch in packaging—the sales power of a strikingly designed closure in their customer's hand. They know that a closure must be easy to remove and replace—yet faithfully guard the contents. That is why they insist upon Dodge—the cork closure of beauty and utility.

Dodge Milbossed-top corks are made of uniform, high grade natural cork firmly joined to sturdy, cleanly knurled hardwood tops. They are available in standard designs—or personalized with your own name or trademark—in a wide variety of sizes and colors.

Bring your needs in closures to us—we're always glad to be of service.

DODGE CORK COMPANY
INCORPORATED
LANCASTER, PENNSYLVANIA

DODGE CORK CLOSURES - DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

## PERFECT SETTING FOR BULOVA'S "O Leademy Award"

MOLDED FROM

#### KOPPERS POLYSTYRENE 81

B ULOVA presents its new "Academy Award" watches in a glamorous setting—ivory and gold, velvet-lined boxes, in the form of a miniature stage. And the boxes are molded from Koppers Polystyrene 81.

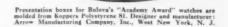
Practical considerations, along with beauty, led to the selection of Koppers Polystyrene 81 for this molding job. For Polystyrene 81's improved heat-distortion temperature range gives the box greater stability in hot climates, in unventilated show windows, under batteries of lamps.

Koppers Polystyrene gives fast and easy moldability with minimum rejects, resulting in lower molding costs. Polystyrene's light weight gives more pieces per pound, reducing material costs.

The unique properties of Koppers Polystyrene have made many products better and many better products possible. Investigate it in connection with your product by mailing the coupon for your copy of "Koppers 1950 Polystyrenes."



Bulova's "Fifth Avenue" slao has a distinctive box molded from Koppers Polystyrene. It, too was designed and manufactured by Arrow Manufacturing Company, Inc.



#### KOPPERS POLYSTYRENE

gives you all these advantages

Low cost

light weight—more pieces per pound Excellent dimensional stability Excellent electrical properties Choice of heat-distortion temperature ranges Good chemical and moisture resistance Tasteless and odorless Unlimited color range

Koppers <u>Perfect</u>

KOPPERS COMPANY, INC.

Chemical Division Pittsburgh 19, Pa.
Regional offices: New York, Boston,
Philadelphia, Chicago, Detroit and Los Angeles

Copyright 1950, Koppers Company, Inc

**Plastics** 



Chemical Division, Dept.MPG-9 Pittsburgh 19, Pa.
Please send me your booklet on Koppers 1950 Polystyrenes.

Koppers Company, Inc.

Name .....

Address

## Meet the BEMIS Small Bag Family

These Bemis Bags belong on your packaging team. Here's why:
They fill and pack economically. That helps your costs. They give
unbeatable display to your brand. That helps your sales. They are
good packages and consumers realize it. And that helps everybody.

Get the full details of the Bemis small bag story. Ask the Bemis man.

## A Winner for You



Bemis DELTASEAL Begs (Rattube) have the exclusive Pull-Cut- Pour Spout. The white coated or bleached paper makes your brand stand out on all sides. The squared shape makes for eye-filling mass displays. Blue-lined, if you prefer, (makes white flour look whiter).



Bessis Flexi-Certon—Intuck bags that square up beautifully and billboard your colorful brand all around. Like Detaseal, these are economical bags worthy of your good product. A variety of types of closures available.



Bemis CELLOPHANE Begs are increasingly preferred for meal and granular products. Cellophane is a showcase for your merchandise . . . really turns the spotlight on it. And the brilliant color printing on Bemis Cellophane Bags shouts for attention...you must see iff

#### There is a Bemis Plant or Sales Office near you—

Baltimore - Baise - Baston Braukien - Buffelie - Charlatte Chierage - Cimpelland - Denver Detroit - Esit Pergenorill Hauston - Indianagalis Jacksonsille - Be - Lausville Kannes - City - Las Angeles Mapais - Minnagalis Mabile - New Orlean New York City - Norfolk Gilahama City - Comaha Fusica - Phaenie - Pinsburgh St. Laus - Salt Lake City Salina - San Francisco Scattle - Vancauver, Wash Wichita + Wilmington Cait

Bemis

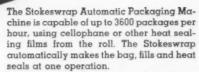


# Safeguard PURITY

WITH



A STOKESWRAP package gives "eye appeal" plus "protection" to this product. It's good to look at, and when it's opened, the Pecans are fresh as the day they were packed. Stokeswrap gives "profitable packaging" with "sales appeal" to many products such as candies, nuts, cookies, coffee, etc.



Let us show you how it can lower your Packaging cost. Write for complete information.

STOKESWRAP installation at Guadalupe Valley Pecan Company, San Antonio, Texas.

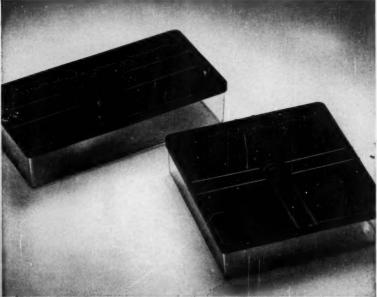
Exclusive West Coast Distributor: Anderson-Barngrover Division of FMC San Jose 5, California

STOKE SES MITH @



Subsidiary of Food Machinery and Chemical Corporation FRANKFORD • PHILADELPHIA 24 • PA.

## Stoway PLASTIC CONTAINERS!





Stoway does it again with two new plastic containers. Designed for maximum product display and re-usability.

These new Stoway containers are already being used by a large national packer to stimulate food product sales.

The rectangular container inside dimensions are 3-1/4"x 6-7/8"x 1-5/8". The square container inside dimensions are 5-1/4"x 5-1/16"x 1-3/8".

The Containers shown are Sparkling Crystal with Ruby lid — a powerful sales appeal for any product.

See these new containers as well as the others of the famous Stoway line.

Wire, write or phone for colors, combinations, specifications and samples.

SOUTHERN CALIFORNIA PLASTIC COMPANY

1805 FLOWER . GLENDALE . CALIFORNIA



You can put more "sell" in your package with a WIRZ tubesafe, sanitary, convenient

#### Ideal for:

- . Lubricants
- . Caulking Compounds
- . Polishing Compounds
- . Cements
- . and a Multitude of Other Products

Wirz Tubes - with or without special applicator tips are pleasing more and more industrial users. Their ready dispensability, their protection of contents to the last bit; their attractiveness, their shatterproof and light weight economies, make them favorites wherever used. Send today for our new tube booklet giving full information on successful packaging in WIRZ Collapsible Tubes, or phone our nearest representative for samples.



Fourth & Cole Sts. CHESTER, PA.

Export Division: 755 Drexel Bldg., Philadelphia 6, Pa.

New York 17, N. Y. 50 E. 42 St.

Chicago 4, III. 80 E. Jackson Blvd.

Memphis 2, Tenn.

Los Angeles, Calif. Havana, Cuba 435 S. La Cienega Blvd. Roberto Ortiz & Son

Collaysible Notel Tubes . Lacquor Linings . Wax Linings . Westite Clasures . Soft Metal Tubing . Household Can Spauts . Applicator Pipes . Compression ... Injection Molding

## Every Type of UNIT PACKAGING

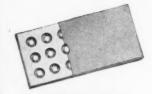


MULTI-UNIT SALE PACKAGE
Carries from 25 to 250 tablets.



DISPENSING PACKAĞE
From 200 to 500 tablets, unit-packaged in
a single strip, fed through an opening—

ready to be torn off as needed.



PUNCHBOARD MAILER
So rugged that it requires no special pro-

So rugged that it requires no special protective carrier—provides space for advertising and instructions—entirely acceptable to postal authorities.



BOOKLET PACKAGE

Provides ample space for trade-name and story of your product—easily adaptable to various over-all sizes and contents up to 24 tablets.



CATCHCOVER PACKAGE

For sampling or small unit-sale package protective, convenient, attractive.



CREAM OR POWDER PACKAGE

For sampling or standard sale package produced complete in one operation, with rounded corners and double crimp.



"I L" MINIATURE PACKAGE

A perfect "miniature" of your larger unit -carries any reasonable quantity of tablets, creems or powders and has accurately, located printing both front and back. The most economical, complete package ever produced.



#### MINIATURE PACKAGE CARRIER

A special, inexpensive, carrier produced by us at high speed, to hold several multiples of the day's dose package.



#### PACKAGE OF THE MONTH

Litrison-Roche — a liver treatment product in two-piece, hard gelatin capsule — each seeled in its own oval pocket of 1.1.T. material. 6 capsules—a day's dose—in catch-cover folder, for distribution to the medical profession.

You, too, can develop for your product an outstanding package from one of the basic types shown above. At the same time you find at your service, the facilities of the world's largest and finest contract packaging establishment—and the "know-how" of 30 years' experience in the specialized field of unit-packaging. For the finest packaging at least cost, look first to . . .

#### UNIT PACKAGING HEADQUARTERS

IVERS-LEE COMPANY, NEWARK, N. J.



All packages illustrated above are covered by one or more patents and are available only through the Ivers-Lee Packaging Divisions — licensees or Associated Companies throughout the world. Imitating infringers are subject to legal action.



## in Decorative Box Coverings Is ROYAL

Whether you are packaging pills or pillows, Royal has the type of design or the "occasion paper" that will fit your need. Enhance your packaging. Add sales appeal. Help merchandise your product with packaging in the modern style.

This specimen shows one of our newest Gravure box covering papers and is only one of many available designs. Consult your box maker or write us for suggestions and detailed information.

#### PERFECTION Box Coverings and Papers For Year-Round Use and

For Special Occasions Such As:

Christmas

Weddings

Bridal Showers

Diludi Silone

Father's Day

Valentine

Birthdays

Easter

Mother's Day

Bon Voyage

**Baby Showers** 

Your name or trade mark can be incorporated in many of our distinctive designs. Specify PERFECTION when ordering.

Our papers are also available for gift wrapping and window displays.

There Are No Papers Like Perfection Decorative Papers

#### ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

210 ELEVENTH AVENUE

NEW YORK 1, NEW YORK

The sample shown is G 105 White Chrome Base



Combination metal and paper cans. Fibre and paper cans. Tubes of paper, fibre and plastics. Cores mailing cases, etc. Ask for our special folder . . . and helpful suggestions.

### The CLEVELAND CONTAINER &

All-Fibre Cans • Combination Metal and Paper Cans
 Spirally Wound Tubes and Cores for all Purposes

Spirally Would lubes and Lores for all Purposes Flants AND SASS OFFICES Cleavand, Deroid, Chicage, Plymosth, Wisc, Jamesburg, N. J., Ogdensburg, N. Y. - ARRAIVE DIVISION of Clavelend SALSS OFFICES Grand Carter Terminal Side, New York Ciry, Washington Gas Light Bidg, Washington, D. C., Wash Hartford, Conn.; Rechester, N. Y. Cleveland Cantinece Canada, Life, Prosect, Chronic - Offices in Females and Mantender

## Soft surfaces MAKE THEM SELL



Behrlon

### flocked box papers

Your package or product has an extra appeal with a soft, luxurious, pile-textured BEHRLON surface. It wants to be handled — and that leads to sales. Moreover, BEHRLON appeals to the eye with rich, colorful tones — many standard colors and shades to choose from. BEHRLON flock finishes offer an economical way to add interest and elegance to any display.

See how well your package looks with a soft BEHRLON-ized surface. Send us a sample and we'll demonstrate. Write for the latest color swatch card. Address Dept. MP-9.

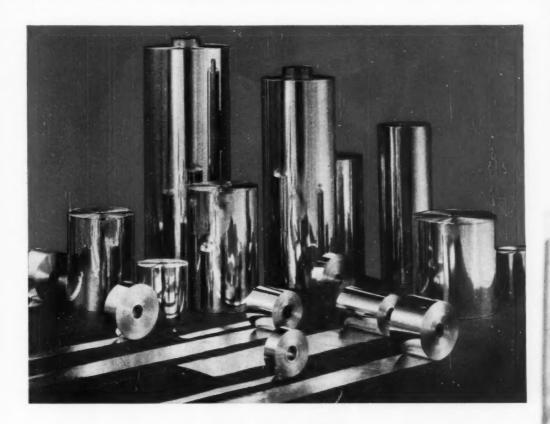
BEHRLON flocked box papers are available from leading manufacturers in the packaging trade.



BEHR-MANNING . TROY, N. Y.

(DIVISION OF NORTON COMPANY)

Makers of NORZON® Electro-coated Pile Fabrics



#### Kaiser Aluminum Foil tailored to your needs

#### For converters and manufacturers of:

Beer and can labels Gift wrapping Butter wraps Oleo wraps Box coverings Window decorations Fancy paper

Cheese wraps
One way pie pans
Food containers
Chewing gum wraps
Flexible packages
Crown lining foil

Household foil

Milk bottle closures Freezer locker foil Electrolytic condenser foil Chocolate wraps Rolled candies Cigarettes Tobacco products

And many other products

Our experienced personnel are prepared to work with you in your present converting problems or in the creation of new packaging materials using Kaiser Aluminum Foil.

Operating the only foil plant west of the Mississippi, Kaiser Aluminum offers especially prompt service to western customers.

## Kaiser Aluminum Foil

SOLD BY KAISER ALUMINUM & CHEMICAL SALES, INC., KAISER BUILDING, OAKLAND 12, CALIF....OFFICES IN: Atlanta \* Boston \* Chicago \* Cincinnati \* Cleveland \* Dallas \* Denver \* Detroit \* Houston \* Indianapolis \* Kansas City \* Los Angeles Milwaukee \* Minneapolis \* New York \* Oakland \* Philadelphia \* Portland, Ore. \* Rochester, N. Y. \* Seattle \* Spokane \* St. Louis Wichita \* Export Office, Oakland, California \* Warehouse distributors in Principal Cities









In Use For Cosmetics



In Use For Air Deodorants

The new 6 oz. TALL Spra-tainer is now available . . . now ready to take its place as worthy companion to the famous 12 oz. LARGE and SQUAT 6 oz. Spra-tainers.

Already in use for Cosmetics, Shampoos, Air Deodorants and Insect Repellents, the new 6 oz. TALL Spra-tainer is ideally suited size-wise and esthetically to a whole host of new products which henceforth will s-p-r-a-y: Perfumes, Colognes and Toilet Water; Mouth Washes and Gargles; Soaps; Hair Lacquers; Under-Arm Deodorants. What's YOUR idea? There's no limit!

Ask a Crown Sales Representative about the new 6 oz. TALL Spra-tainer. Make sure the container you use is Spra-tainer—first on the market, first in sales—"no-side-seam"—"no-top-seam."

Cross Can Company
Eric Acouse at H Street, Philadelphia 34, Pa.
Eric Acouse at H Street, Philadelphia 34, Pa.
Planse have a Cross Sales Representative call, and send me literature on the Spra-tainer.
Name.
Firm.

One of America's Largest Can Manufacturers

CROWN CAN

Plants at Philadelphia, Chicago, Orlando. Branch Offices: New York, Baltimore, Pittsburgh, St. Louis . Division of the Crosen Cork & Seel Company



Impoor Soul, air and By aid tight flexible covers a, and are included in the sets of all Toppon were Canisters.



The Toppervers 50 ca. Conleter is "standard solpped" with the opper Seel, oir and liqstight flushic Pour All

> The Tupper Seel, air and liquid-tight flexible Pour All cover is used on every Tupperver 20



topper Seor, or end mydalight, Pour All cover as cover hir 46 as, ame apparate Sauce Dishas as the conteiners of metal, tots or pettery. Foods easily appared without removing wire sover.



he Tupperware Wander
with are usually fitted with
topper Seal, oir and liquidupht covers.



#### JUPPER / Seals

air and liquid-tight, flexible covers for Tupperware Tumblers, Canisters, Wonder Bowls, Cercal Bowls and many another container of glass, metal and pottery, the contents of which it is desired to keep feesh and wholescents.



9th November, 1949

EXCLUSIVE

FORMAL NOTICE!

U. S. Patent #2,487,400

The Tupper Corporation has attained a position of leadership in this industry by incurring great expense and expending painstaking effort in the development, design, manufacture and exploitation of its many world-known products.

The Tupper Corporation further has anticipated the inevitable attacks to which leadership is subject and has taken measures provided by law to preserve the creative rights to its products, methods and design by patent protection both in the United States and abroad.

Tupper Seals for Tupperware shown in this advertisement are just a few of the forms covered in this manner and are specifically covered by U.S. Patent #2,487,400.

Only the Tupper Corporation, by U.S.Patent #2,487,400 has the right to make, use and vend container closures in connection with any and all types of containers throughout the United States and its territories as covered by the claims of the Patent.

Tupper Corporation will protect, according to law, the exclusive rights above granted

TUPPER CORPORATION

There's a Tupper Seel, as and Revid-Hight Harlback awar for Tupperwore 5, 8 and 12% as Tumblers for, and that Tupper Seel, cavers among other containers a motal, glass and crockers.

The Tupper Seel, oir ealiquid-tight Healble Pe Top cover, specially aligned as a dispension cover for specified diseduce of containers holding feeds such on tyrussaled diseasings, currents



The core of the Topest ware Brood Server whis serves as a breed fresho is designed to glamilar results as Tupp teal, als and liquid tip featible covers. Keep activité front as an objustic confoiner.



When equipped with To per Seal, air and liquit light, flexible cover, Tupperwere Careal Bos serve many enother pe



The Tupper Seal, etc. etc. iiquid-tight flexible conmade for Tupperware
az, Tumblers also fits adis sold with all Tupper
ware Tunnels are used when funnels are used warege confeieers.

JUPPER CORPORATION

Monufacturers of CONSUMER, INDUSTRIAL PACKAGING AND SCIENTIFIC PRODUCTS
REMOVALING MASS., and Cherry, Texas

ADDRESS ALL COMMUNICATIONS TO Department

## Crescent Package Inks

There's a Crescent ink for every packaging stock—every printing process. An ink with printing and drying qualities you can depend on. An ink with the body and color you need to turn utility packages into their own salesmen. Try one of these on your next job.

#### **→** HOMOGETONE

-firm bonding on cellophane, glassine, foil and plastic films.

100% pigmented for full opacity. Odorless and fast drying. Also made in a special formula for absorbent stocks with three stages of control

-non-evaporating, normal and fast drying.

#### **→**AQUACHROME

a water soluble ink, brilliant and smooth laying on absorbent stocks.

When dry, this ink is extremely water resistant—unaffected by waxing—will not spot or smear.

#### GRAVITONE

—a gravure ink for cellophane, glassine, pliofilm, other selected packaging materials. Opaque—prints small type and fine lines with exceptional clearness. Prints glossy or mat as desired.

#### **→**DIENE

 a moisture set ink for letterpress printing on absorbent stocks.
 Odorless—ideal for food packaging. Dries instantly on application of steam and can be waxed immediately.

#### SMILAN

—a heat set ink for letterpress printing on all paper stocks including box boards.

Dries instantly without absorption into the stock. Good mileage—bright clear colors—maximum gloss without varnish.

INK & COLOR CO.

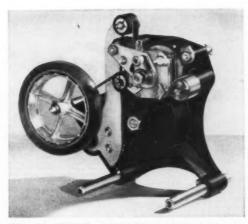
464 NORTH FIFTH STREET

PHILADELPHIA 23. PA.

INKS FOR ANILINE • LETTERPRESS • LITHOGRAPHY • ROTOGRAVURE



STRIPS OF COLORED CELLOPHANE TAPE anchor transparent cover in place, add a bright touch to the attractive Old Spice Shaving Soap Mug.



**TWO OF THESE** Type "M" Box Sealers without the regular housing (see pictures below) formed a packaging team that quadrupled output per worker.

### Tape dispenser ups worker output 300%!



Operator merely presses mug against dispenser rollers.

"SCOTCH" Pressure-sensitive Tapes plus taping equipment tailored for your product . . . that's the combination that will work packaging wonders for you! Hundreds of manufacturers are making new savings with these up-to-the-minute tapes and machines. For instance, this special mounting of two Type "M" Box Sealers brought Shulton, Inc., Clifton, New Jersey, manufacturers of popular "Old Spice" Shaving Soap, a 75% saving in packaging man-hours!

Whatever your product, it will be simpler and easier to package with attractive easy-to-use tape. Easy to arrange, too. Let one of our experienced Tape Engineers help you determine the right tape (from 118 varieties in our line) and the right dispenser (we'll design it for you, if necessary) to do the best possible job. Address Dept. MP950, Minnesota Mining & Míg. Co., St. Paul 6, Minn.



Colored Cellophane tape strips are applied automatically, give a 75% savings in packaging man-hours.



Best known, most complete line of pressure-sensitive tapes and dispensers available in the packaging industry.

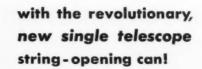
FOR NEWS OF ANOTHER PRODUCT OF THE 3M CO. SEE PAGE

Made In U. S. A. by MINNESOTA MINING & MFG. CO., St. Paul 6, Minnesote

also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-Slip Surfacing,
"3M" Abrasives, "3M" Adhesives.

General Export: DUREX ABRASIVES CORP, New Rochello, N. Y. • in Conodo: CANADIAN DUREX ABRASIVES LTD, Brontford, Ontorio





Away out front in modern packaging design ... that's Sefton...because their designers are always on the alert to give you a better package for your product! Now they've created a single telescope can that has a built-in reclosure... in addition to the wellknown features of the string-

opening can; factory-sealed, tamper-proof and easy-to-open. Choose it for your product in round, oval, square or oblong shapes, in a variety of sizes for which Sefton is tooled.



DIVISION OF CONTAINER CORP. OF AMERICA

DISTRICT OFFICES: eLes Angeles eSalt Lake City e Denver e Dallas eChicago e Cincinnatti e New Orleans e Boston e Detroit e New York e St. Paul

Cleveland . Memphis . Nashville . Seattle . Portland



## AND COMBINATION CONTAINERS OF

## New Type LUMARITH\* SHEET

The new type Lumarith transparent sheet is made to order for merchandise that must be eye-appealing and still sell at a price. Lumarith sells for substantially less, yet it has all the qualities you need for best packaging results, including remarkable ease of fabrication.

- · Crystal transparency and surface brilliance
- Uniform in gauge
- . Easy to blank, bead, draw, cement
- · Perfect printing surface
- Stocked wide range of thicknesses—rolls and sheets

The new, low cost Lumarith sheet opens up greater

markets for transparent packaging. Investigate its possibilities. Write for more information.

Celanese Corporation of America, Plastics Division, Dept. 8-I, 180 Madison Avenue, New York 16, N. Y. In Canada, Canadian Cellulose Products Ltd., Montreal and Toronto.

\*Reg. U. S. Pat. Off.

PLASTICS

extra advantages for YOU in this

cify Ritchie

The extensive, varied Ritchie line of packaging assures you almost Unlimited Selection ... Production Economies of newest type equipment ... High Standard of Quality ... A Source That Has No "Packaging Pets" but produces all kinds of paper or rigid transparent packages ... plus Ritchie's 84 Years Experience in working with leading package users, to produce the right package to suit each product and marketing situation.

Ritchie

When you have Ritchie make your Folding Cartons, they are produced by the Most Modern Machinery and Methods known to the Packaging Art. For example, the creases on Ritchie Folding Cartons are all pre-folded, making assembling operations easier and faster.



Choose from all styles, in rectangular, round or odd shapes, the quality set-up boxes that makers of America's finest merchandise are proud to choose for their products. proud to choose for their products.

Leaders in over 150 different
industries "Specify Ritchie".



Spiral or Convolutely Wound Fibre Cans, round, rectangular or oval, in almost any siza and with a wide variety of closures.



Ritchie Let us develop a special sales-stimulating package for you that will make your product attractively visible inside the package.



Fuper Speels Ritchie

Various size spools for winding ribbon and string; also tubes and cores to meet special packaging and manufacturing requirements.



W. C. Ritchie and Company, 8840 Baitimore Ave., Chicago 17, III.

FREE BROCHURE Please send my copy of your prochare prochare to Get Batter Packaging, in the prochare strength of the Batter Packaging, in the prochare strength of the proc COMPANY NAME....

STREET ADDRESS.....

\_\_\_\_\_\_

ZONE .....

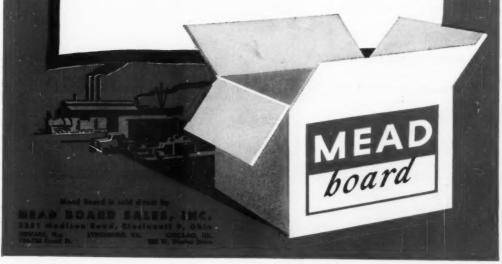
8840 BALTIMORE AVENUE, CHICAGO 17, ILLINOIS New York • Los Angeles • Detroit • Dallas • Denver Providence • St. Louis • Cleveland • Jacksonville



The current mania for matrimony, coupled with the building boom, is proving very salubrious indeed for the furniture industry. Young Mrs. Housewife is partial to modern decor, which usually means that the new love nest is furnished from scratch — no hand-me-downs from the parental home to dilute the furniture maker's joy.

Furniture sales in 1948 hit the stratosphere with a whopping \$2,670,000,000. After sliding off a bit last year, they bid fair to rival 1948's record dollar volume in '50. Most of this furniture — modern and traditional — is secured against blemish and dismemberment by shipping cases of sturdy corrugated board.

Furniture items of surprising bulk can run the distributional gantlet with entire confidence if they're snugly ensconced in cases made of MEAD .009 Chestnut Corrugating and Liners. Super-strong MEAD Corrugating is made from chestnut and other hardwood fibres. It's been a surety of safe delivery for shippers these 20 years.



## for customer appeal **PACKAGE** YOUR PRODUCT IN ALCOA TUBES

They're attractive. Made of aluminum, the metal that provides an ideal surface for eye-catching colors. They're strong. Protect the contents until the last drop is used. They're easy to use. Add up these advantages and you've customer appeal for your productadded sales for you.

Why not investigate these tubes today? Let us send you a copy of "Packaging in Alcoa Aluminum Tubes", our 24-page booklet on collapsible tubes. Gives information on weights, sizes, capacities, filling, etc. It's free.

Write

#### ALUMINUM COMPANY OF AMERICA 1751J Gulf Building

Pittsburgh 19, Pennsylvania





CAULKING

## LOAD, GLUE, SEAL and IMPRINT YOUR CORRUGATED SHIPPING CASES WITH PACKOMATIC

Share the know-bow to which America's foremost packaged goods manufacturers turn for modern, automatic PACKOMATIC fibre shipping case packing, gluing, sealing, dating (coding) and imprinting equipment. Counpon below will speed information.

Model "D" shipping case gluersealer for high speed, moderate or slow production lines. Automatically applies wide variety of glue spreads. Handles both light and heavy corrugated or solid fiber containers. Adjustable for wide variety of case sizes and weights.





2 "STREAMLINER" Model "D" case gluersealer for food, dairy and beverage operations open to public.



5 PACKOMATIC shipping case loader automatically packs filled cartons into cases and starts them on their way to gluersealer unit.



3 COMBINATION END LOADER-SIDE SEALER takes round or rectangular packages, assembles and loads them into cases previously squared and registered.



6 PACKOMATIC shipping case formerpacker delivers up to 1200 loaded shipping cases per hour, automatically.



A SIDE GLUER-SEALER for cases going through in horizontal position such as end-open, tall and narrow cases with overlap as well as regular butt flaps.

Turn to PACKOMATIC'S nearly 30 years of helping America's foremost package merchandisers reduce production costs, keep resale prices in line, and step-up earnings with modern, automatic packaging—from carton forming and filling, to shipping case loading, sealing and imprinting.

PACKOMATIC automatic packaging equipment includes:

CASE PACKERS & SEALERS
CASE IMPRINTERS
CARTON FILLERS &
SEALERS
VOLUMETRIC FILLERS
CARTON MAKING
MACHINES
DATING (CODING)
DEVICES
PAPER CAN FORMING &
FILLING MACHINERY

Preserve and protect the shelf appeal of your packages with modern, automatic PACKOMATIC packaging machinery. Save time... floor space...labor...money!

Regardless of the size or scope of your operation, your inquiry incurs no obligation to purchase.

gation to purchase. Write J. L. Ferguson Company, Route 52 at Republic Avenue or phone Joliet 6275.



FOR LOWER PACKAGING COSTS TOMORROW...MAIL COUPON TODAY

## PACKOMATIC PACKAGING MACHINERY J.L. FERGUSON CO. JOLIET JIL

Chicago - New York - Beston - Baltimore - Cleveland - Denver New Orlones - San Francisco - Los Angeles - Scottle - Portland - Tampa

J. L. FERGUSON CO. Joliet, Illinois Dept. MP	190
	ta on  Case Seating Cartonickage Weighing Equipment.
Company	***************************************
Address	
City	State

if you sell

THE NAVY

THE ARMY CECOLO

OR THE AIRFORCE



## VANANT Field Men Will Help Solve Your Packaging Problem

#### MOISTURE-VAPORPROOF WATERPROOF GREASEPROOF

Bags and Barriers to Meet

AN .. JAN .. MIL

Maintaining large inventory of source inspected materials means speedy deliveries to meet your production schedule. All shipments certified.

R. M. Bracamente & Co. 252 Spear Street Sen Francisco S. Calif.

William Diemer & Co., In 274 Madison Avenue New York 16, N. Y. proof protection . . . whether it be the smallest bearing bag or the largest aircraft engine envelope — you can depend upon VANANT. Call upon one of our field specialists to analyze your contract specifications . . . ask him to suggest the most economical methods and procedures.

You may have special interest in our new VP-210 (polyethylene on kraft) for JAN-P-117 and JAN-B-121 or for commercial applications.

Ask for samples and prices.

Whether you require greaseproof, waterproof, or moisture-vapor-

#### VANANT PRODUCTS, INC.

Milwaukee I. Wisconsin

Represented by

Plant: Tomoh, Wis.

431 Andres Bidg.

1508 Finance Bld Philadelphia, Pa

Chicago 19, III.
R. M. Reutlinger & Associates

The Smythe Company 2661 N. Teytonia Ave 964 N. Main - P.O. Box 4385
Fort Worth, Toxas

Bl3 N. LaBrea Les Angeles 38, Calif. Swift's Adhesives help you

... and Junior, too!





Junior doesn't know it, but when he sneaks into the pantry for snacks he's liable to meet Swift's many adhesives, too. Among the hundreds of Swift's Adhesives, there are special ones for packagers, for bottlers and for bookbinders. Our years of adhesive experience, our wide range of raw materials can help you find the adhesive that fits your requirements . . . and lowers your operating costs.

#### Two of many of Swift's special adhesives for packaging operations

1262 – Liquid adhesive for top and bottom sealing and titewrap work. A fast-setting, non-warp adhesive, easy to handle. Provides a strong bond.

Textile – For quality setup box work. In convenient cake form – it is non-warp and light colored for finest work. Economical because of its better coverage resulting in lower final cost.

Test these adhesives at quantity price! Clip the coupon!



Swift & Company Adhesive Products Department Chicago 9, Illinois

Please send your 100# introductory trial shipment of

1262 at the quantity discount price, FOB nearest adhesive plant.
 Textite at the quantity discount price,

FOB nearest adhesive plant.

These will be tested for use in our operations. We understand if not fully satisfactory, they may be returned for credit at your expense.

Name \_\_\_\_\_\_Title \_\_\_\_\_

Address \_\_\_

This offer expires October 31, 1950.

/ES

## THE HARVEST

Throughout the years,

Columbia's faithful and

efficient service has

yielded a harvest of

continued customer

loyalty.



CUSTOM MOLDERS OF PLASTIC PRODUCTS
AND SPECIAL PLASTIC PACKAGING

COLUMBIA PROTEKTOSITE COMPANY • Carlstadt, New Jersey
New York Showrooms: Empire State Bldg. • West Coast Office: 380 Bayshore Blvd. San Francisco. Calif.

ONE OF AMERICA'S LEADING MANUFACTURERS OF SUN GLASSES, COMBS, BRUSHES, TOYS, HOUSEWARES

## blue says "Buy me"

# **PACK** TO ATTRACT

Does your package do only half its job? Does it act only as a container? Or does it do a complete job as half container . . . half merchandiser?

Maryland Blue Glass excels in both these vital functions. Many famous name brands have proved through years of use that Blue acts as a powerful advertising, merchandising and selling tool. Blue gives your product an air of distinction and quality. Blue is easier to see . . . easier to remember. Blue displays your product in a way that says, "Buy Me!" So follow the lead of many famous brands ... pack to attract in Maryland Blue. Write for details and samples.





ALSO AVAILABLE IN CLEAR GLASS

MARYLAND GLASS CORPORATION

BALTIMORE 30, MARYLAND

LABELING

NO GLUE TO FUSS WITH

WITHOUT

NO LOOSE EDGES ON LABELS

GLUE

NO DAILY "CLEAN-UP"

That's trouble-free Labeling

#### Available only on the Label-DRI\*



Here's quick relief from all the variables due to the nature of adhesives; daily preparation and maintenance; daily clean-up; intermittent check-up an viscosity. The Label-DRI, using thermoplastic-coated labels (which your own printer supplies), utilizes heat to activate labels for all-over, permanent adhesion. You never saw a neater, sweeter labeling set-up—eliminating all the doubts and messiness of glue handling.







Get the FACTS regarding the whole, simple details of "labeling without glue". Write for folder!

NEW JERSEY MACHINE

Corporation

1510 WILLOW AVE. . HOBOKEN, N. J.

Factory Sales and Service Branches at Chicago, 325 W Huron Street Cincinnati, 1701 Carew Tower Las Angeles, 2500 W 6th St.

804 \*Reg. U. S. Par. Off Equally effective on glass, plastic, cloth, paper or wood





# Plan Now To Put The New ERMOLD. AUTOMATIC UNPACKER

On Your Line in 1950

Colored signal lights indicate cause of interruption. ERMOLD Hinged safety glass windows provide maximum safety without loss of ac-Automotic central stops machine if cessibility or visiflow of full cases is interrupted. Photo-electric eye control interrupts unpacking cycle if containers are not clear of machine. Carton flap guide. Right or left har se feed eptional. Operational adjustments Handles any standare readily accessible. Compact. Overall dime ard size container siens are approximately 6' x 6' x 6'. Changeover to different packed in any unisize containers or cases is a matter of minutes. form carton, case or frey.

After years of research and field work, Ermold has designed the most practical, most economical method of removing standard containers from cartons, cases or trays and placing the containers on the line. Plan now to integrate this new Ermold Automatic Unpacker into your production set-up in 1950.

Here's what the new Ermold Automatic Unpacker will do:

• It takes filled or partially filled cases and discharges the containers on a continuous conveyor while discharging the empty cases on either

the right or left side.

- It automatically rejects odd size or badly damaged cases, under or overlength or broken bottles.
- Fully automatic safety devices not

only protect employees, but also prevent damage to the machine.

 Output of the Ermold Automatic Unpacker is ample to meet most practical operating needs.

The new Ermold Automatic Unpacker is now being manufactured in quantity. Your Ermold representative will be glad to give you all the facts and show you how this new machine can be put to work in your plant, Write us today,

### EDWARD ERMOLD COMPANY

652 HUDSON STREET, NEW YORK 14, N. Y.

OFFICES: BOSTON • CHICAGO • CLEVELAND • LOS ANGELES • MONTREAL • ST. LOUIS • SAN FRANCISCO • TORONTO • MEXICO • CUBA • ENGLAND FOUNDED 1880 • Famed for Labeling Leadership for 70 Years • INCORPORATED 1911

RE-110

## It's best answered with the question ... why not? The candy is quality to begin with. The package looks more attractive than its neighbor . . . and it has that "well groomed" appearance typical of neat wrapping and sealing. A lot of candy is sold just this way ... on impulse. Be sure you're getting your share of these sales. Write now for literature and details on how Lynch WRAP-O-MATICS will package your product neatly, more





PAR REFRIGERATION COMPRESSORS







quickly, give it that "quality look" for better point-of-sale merchandising.

PACKAGING MACHINE DIVISION PAPER PACKAGING MACHINES TOLEDO, OHIO







GLASS FORMING

# Stays at bat 2 weeks



## ...on a single dry cell flashlight battery!

If this Goebel display comes within your range of vision...you have to be blind, preoccupied or awfully worried not to notice it!

Because the big boy waggles his wrists and waves his bat in really lifelike, big league fashion...and keeps waggling and waving for two weeks of business days—on one 10c dry cell! No electric outlet needed!

It features baseball, beer, the face of a well-known broadcaster, and the Goebel radio program. Program and announcer were localized for California and Michigan areas where this display is being shown.

Seldom has any display—even an Einson-Freeman display—made such an immediate hit, won so much favorable reception from both public and trade. And it is one of the most economical animated displays ever produced!

We'd like to show you this Goebel display, and our other current productions...so you can see how much difference there can be in a) display, and b) what your display dollar can buy from E-F.

Phone, wire or write...and the nearest E-F representative will come arunnin'...or at least call for an appointment!

Einson-Freeman Co., Inc.

Always-in-there-pitching lithographers
Starr & Borden Aves., Long Island City, New York

# PATAPAR

is custom-tailored to fit your needs...

Need a paper that's strong when wet? Patapar Vegetable
Parchment gives it to you. Want a paper that resists
grease? Patapar is your answer. Want package sales appeal?
A colorfully printed Patapar wrapper really sparkles.
Patapar is produced in 179 types. Each type is

"custom-tailored" to meet special needs. Types vary as to wet-strength, grease-

proofness, opaqueness, moisture vapor resistance, pliability, thickness and many other qualities.

Tell us your requirements. We will recommend the type of Patapar best suited to meet them.

#### BEST PAPER FOR:

Butter wrappers
Ham boiler liners
Deep freeze wraps
Can liners • Fish wrappers
Cheese wrappers
Margarine wrappers
Milk and cream can gaskets
Bacon wrappers
Vegetable wraps
and many other uses

Patapar is furnished plain or beautifully printed in one or more colors



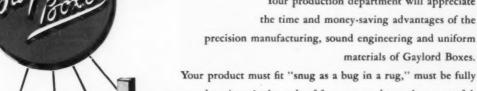


PATERSON PARCHMENT PAPER COMPANY . BRISTOL, PENNSYLVANIA

Headquarters for Vegetable Parchment since 1885

West Coast Plant: 340 Bryant Street, San Francisco 7, California
Sales Ottices: 122 E. 42nd Street, New York 17, N. Y. • 111 W. Washington St., Chicago 2, Ill.



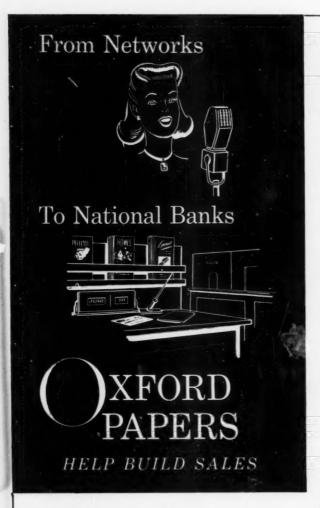


protected against the hazards of frequent, and not always careful,
handling as it travels through the steps of
distribution to the final user.

GAYLORD CONTAINER CORPORATION

General Offices: ST. LOUIS

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Columbus • Fort Worth • Tampe • Cincinneti • Dallas • Des Moines • Oklahome City • Greenville • Portland • St. Louis • San Antonio • Memphis • Kansas City • Bogaluse • Milwaskee • Chettanooga • Weslaco • New Heven • Greensboro • Appleton • Hickory • Sumter • Jackson • Miami • Omeha • Mobile • Philadelphia • Little Rock • Charlotte



Because printed selling is a basic promotion tool of almost every industry, it is used consistently and effectively, for example, to attract sponsors and audiences to networks—and to build acceptance for the wide range of services offered by financial institutions. And, whether your concern with printing involves brochures, programs, booklets, house magazines or sales presentations, you can depend on Oxford Papers to help make all your printed promotions more appealing, more productive.

Back of every grade in this distinguished line is our 50-year experience in developing and perfecting fine printing papers. That is why the Oxford Paper you select for any printing job will prove a sound investment for you and your customer.

#### Oxford Papers Are Good Papers to Know

Whatever your needs, you will find a paper in the Oxford line of coated and uncoated grades that will help you get a better job more economically by letterpress, offset, lithography or rotogravure. Here, for instance, are six Oxford grades that have become established favorites with printing craftsmen from coast to coast:

POLAR SUPERFINE CARFAX ENGLISH ENAMEL FINISH

MAINEFOLD ENAMEL COVER

CARROLLTON

ENGRAVATONE COATED

WESCAR OFFSET

#### Your Oxford Paper Merchant Is a Good Man to Know

Wherever you are located in or near any of 68 principal cities from coast to coast, you can count on your Oxford Paper Merchant for prompt service and practical, friendly help in meeting your needs for paper. His long experience with paper and paper problems can not only save you time, but will frequently help you produce a better job more economically. Get in touch with him today and ask for a copy of the helpful Oxford Paper Selector Chart. Or, write direct to us.

VISIT THE OXFORD EXHIBIT

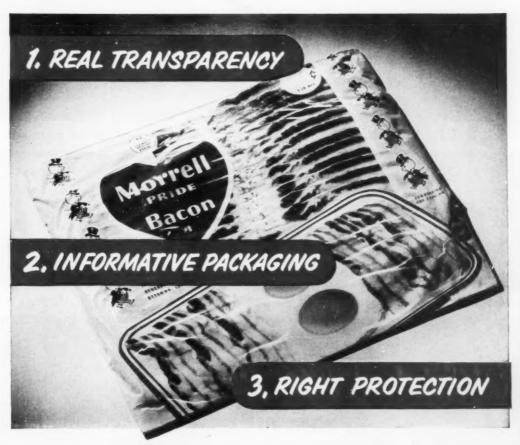
Space 148 Graphic Arts Exposition Chicago, Sept. 11-23



Oxford Paper Company 230 Park Avenue, New York 17, N. Y.

Oxford Miami Paper Company
35 East Wacker Drive, Chicago 1, Ill.

MILLS AT RUMFORD, MAINE, AND WEST CARROLLTON, OHIO



# Three essentials of an effective package

The growing trend toward self-service merchandising has made these three qualities essential to an effective self-selling package:

- 1. Transparency. Shoppers make many purchases on impulse. When food is packaged in crystal-clear Cellophane, they can see all the appetizing goodness of a product.
- 2. Informative Packaging. Shoppers want to be sold by packages—active, "talking" packages: How many servings, how to prepare, new menu ideas, why is it better, and how does it look when it's ready to eat?

3. Protection. Shoppers want the assurance that what they buy is protected from dirt and handling—and kept fresh and full of flavor. There are more than 50 different types of Cellophane film, each tailored to a special protective service.

That's why these three essentials make a successful package. The converters of Cellophane and Du Pont packaging specialists are continually at work helping you to build better packages.

E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Wilmington 98, Delaware.



... THROUGH CHEMISTRY









There's a Tri-State Rigid Plastic Box to fit your product, build your sales,









cut down on your packaging operations. If we cannot satisfy your needs from









our wide range of stock sizes and shapes, we'll mold to your specifications.









PACKAGE IN PLASTIC -- IN RIGID PLASTIC -- FOR ADDED PROTECTION -- GREATER POINT-OF-SALE
APPEAL -- BONUS UTILITY BOXES YOUR CUSTOMERS CAN USE

The Best Rigid Plastic Boxes are Injection Molded by



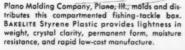
#### TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York Office: 12 E. 41st Street—Murray Hill 3-6572. Chicago: 176 W. Adams St.—Franklin 2-7292

# "Boxing" Lessons for Hard-Hitting Sellers!

Tiffen Manufacturing Corp., 71 Beekman St., New York, N. Y., distributes the BAKELITE Styrene Plastic "Filter-Safe" that protects a camera lens shade and filters. The compact box with its tight-fitting, hinged lid is molded by Griffith Tool & Die Co., 3180 18th St., San Francisco, Colif.







The "Zip-Tie Twine Dispenser," available from J. E. Fricke Company, 40 No. Front St., Philadelphia, Pa., holds a ball of twine and a razor-blade cutter. It is a lustrous, transparent package accurately molded from BAKELITE Styrene Plastic in pleasing detail by Quinn-Berry Corp., 2601 W. 12th St., Erie, Pa.

Regardless of what you box, case, package, or put in containers, there are lessons in these items. They self-sell themselves because they're seen in their protective display containers of clearest BAKELITE Styrene Plastic! They "get across" at once the containers' re-use value. And such containers add little to the cost of the merchandise they help to sell.

More and more manufacturers are choosing BAKELITE Styrene Plastics for outstanding containers like these, These materials are supplied in crystal and all colors—transparent, translucent and opaque. They are easily

and inexpensively molded to accurate dimensions and fine detail. They resist moisture, most strong chemicals, and are low in cost.

For help in packaging your products with BAKELITE Styrene Plastics, write us today. Address Dept. AY-30.



BAKELITE DIVISION, Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, N. Y.



**Speed**... free of expensive equipment costs!

THE NEW AVERY ELECTRIC LABEL DISPENSER, combined with Kum-Kleen pressure-sensitive labels, gives you split-second hand labeling speed without expensive equipment costs. Kum-Kleen labels, on 'conveyer-belt' rolls, feed through the electric dispenser as fast as they can be applied by the operator. Waste motion of handling and sorting loose labels is completely eliminated. The dispenser is small, compact, low cost and fits into any production line. Simple in design, efficient in operation, it can be operated by unskilled help.

Avery pressure-sensitive Kum-Kleen labels can be applied to any smooth surface without moistening. They do not pop, peel or curl, even under extremes of heat and humidity. They stick-and-stay-stuck, yet are removable. Kum-Kleen labels also eliminate costly, sticky fingers, messy labels and soiled packages.

If you're having problems with such hard-to-label surfaces as cellophane, pliofilm, polyethylene, glass, metal, plastics, varnished wood, etc., send for information and samples of Kum-Kleen labels. They can be produced to your exact size, shape, color and printing specifications... to dramatize your package...and give split-second hand labeling speed.



AVERY ADHESIVE LABEL CORPORATION

NEW YORK CITY: 41 Park Row DETROIT: 3049 East Grand Boulevard CLEVELAND: 2123 East 9th Street PHILADELPHIA: 1069 Commercial Trust Building CHICAGO: 608 South Dearborn Street MONROVIA, California

Representatives In All Principal Cities

#### MERCHANDISING IMPACT built on Facts from Forbes





CAR CARDS. These gay and chatty Alka-Seltzer cards, illustrated by the well-known artist, George W. French, are both created and produced by Forbes. Running consecutively throughout the year, with timely changes tying into the different seasons, they do an excellent selling job. Alka-Seltzer's advertising agency is Wade-Advertising Agency.



WINDOW AND COUNTER DISPLAYS. The effective 5-piece display above introduces baby oil, shampoo, hand cream and cold cream to the Cuticura line. Note how individual units, though an integral part of the ensemble, can also be used as individual displays. Created and produced by Forbes. Cuticura's advertising agency is Atherton & Currier, Inc.



SELF-MERCHANDISERS. These colorful circus baskets, lithographed by Forbes, make an eye-catching display for Necco assorted wafers and act as self-merchandisers as well. They take up little space, act as handy containers, are a welcome selling help to retailers.

FORBES FACTS can help your printed merchandising, too. They are accumulated from Forbes' own experience, continuing studies and unique facilities in lithography, letter-press, web gravure and die stamping under one-roof management control. The Man from Forbes will be glad to show you how these facts can be a strong saleshelp for you.



Be kind to conductors! Warn them to collect fares in advance. Passengers soon become *customers* when your car cards are *impact-packed* by the Facts from Forbes. Our clients tell us reactions are immediate.



Delivers Merchandising Impact



## A THOUSAND MELODIES ONE RHYTHM



Of an evening, with the day's printing done and a good dinner under my belt. I like to sit in my rocking chair and hum a catchy tune. Yes, sir, rock and hum, that's next to my favorite occupation. My favorite one is rock and rye. But it's strange, no matter what tune it is I hum, the rhythm is always the rhythm of the rocking chair. Come to think of it, that's

happened to me before. No, not humming with only one rhythm, but working with only one rhythm. Sure enough! My automatic platen down at the shop. It only has one rhythm, too, the rhythm of work, work, work, and more work. No matter what kind of job I have on it, and no matter what kind of paper and ink I use, it always gets out that work in a hurry. Gives you'a warm feeling just to watch it. Not only because of its smooth rhythm, but I know as long as that baby is ticking off the sheets, this baby is sure to get his pay envelope at the end of the week. Yessir, that's the rhythm of my automatic platen press.





Heidelberg Eastern Division Heidelberg Western Division
Street New York, N Y 118 East 12th Street Los Angeles, Calif. 121 Varick Street

HEIDELBERG SOUTHERN INC. 120 North Sampson Street Texas Houston 13,

SUPER SPEED PRINTING PRESS CO. INC. PRINTING MACHINERY SERVICE CO.

GRAPHIC EQUIPMENT LIMITED Heidelberg Canadian Division 200 Bedford Road Tor



### She doesn't want a package!

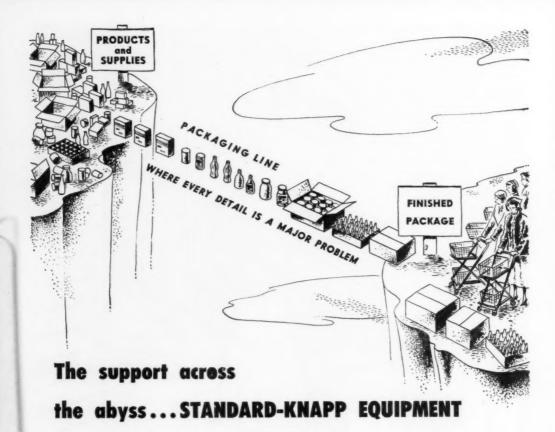
Yet retailers and manufacturers everywhere agree that today good packaging is vital to volume turnover.

A package with shelf appeal catches the eye, suggests purchase, but the consumer buys the product—not the package, so she wants to see what she's buying. Transparent protective packaging is the answer. Glamourising the product, it fosters the impulse to buy. Revealing the product, it clinches the

This is the reasoning behind today's ever increasing demand for cellulose film which we, as the largest exporters of cellulose film in the world, are now striving to satisfy.

#### BRITISH CELLOPHANE LIMITED

Sales Offices: 17/19 STRATFORD PLACE, LONDON, W.I. ENGLAND Reg. Offices and Factory: BATH ROAD, BRIDG WATER, SOMERSET



Keep your packaging line modern and equal in tempo along its length . . . eliminate the headaches and omissions of complicated maintenance . . . and you add dollars to your profits.

Prevent the bald-spotted profit margins that result from overlooking such details. Forestall the price rises that unhinge your salesmen's knees and take the snap out of your distributors' merchandising. The formula is Standard-Knapp Packaging Machines.

Engineered and built by men who have made the details of the packaging line a lifetime career, our machines step up efficiency, reduce overhead, simplify production and maintenance and beat down break-even points.

Claims? Not a bit of it, as Standard-Knapp installations in hundreds of leading plants attest. Keep your production line constantly at peak efficiency in every detail. Install Standard-Knapp Packaging Machines — they're Automatically Preferred.

WEST COAST REPRESENTATIVES: MAILLER SEARLES, INC., SAN FRANCISCO - LOS ANGELES

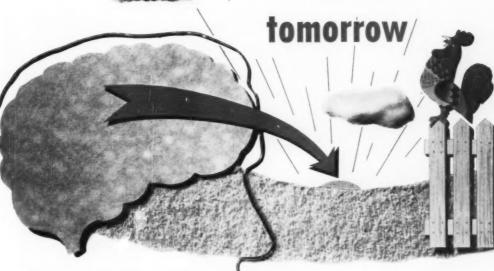
STANDARD-KNAPP

DIVISION OF HARTFORD EMPIRE COMPANY

PORTLAND, CONNECTICUT

## Where to find a brain





(Look in any alert packaging department of U. S. industry)

What has happened in package merchandising during the past generation is a result of what has happened in the brains of men who carry the responsibilities of U. S. industry's packaging departments.

Leaning forward is a habit in packaging departments—and as a result packaging today is more attractive, more colorful, more truly representative of quality, more clearly distinctive in regard to brand identification, and gives better protection to its contents than ever before in history.

Yet never before were packaging departments so alert to possibilities for improvement. Improvements in board, in printing, in package design, in mechanical handling on the packaging line are under continuous scrutiny so that retailers and their customers may have the benefit of further improvement as competent scientific testing proves the benefits practical.

Along with top-quality performance in producing today's cartons and containers PLANNED PACKAGING devotes an important segment of its complete and coordinated facilities to meeting tomorrow's requirements. Hand-in-hand with the newest production facilities go the laboratory and design facilities which help U. S. industry's packaging departments to make package development in widely varied fields a spearhead of merchandising progress.

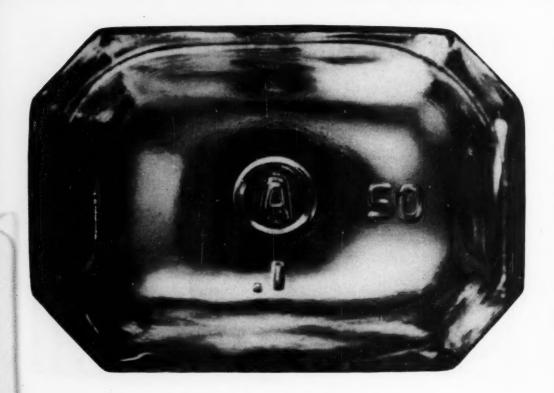




#### THE OHIO BOXBOARD CO.

RITTMAN . OHIO

Manufacturers of paper board, folding boxes, corrugated and fiber shipping containers, and converted specialities SALES OFFICES: RITIMAN - AKRON - CUVAHOGA FALLS - TOLEDO - CLEVELAND - COLUMBATI - YOUNGSTOWN - MANSFIELD - PITSBURGH - NEW YORK - CHICAGO



## The mark of personalized glass packaging service

Quite often one of our customers will tell us how much he appreciates the personalized way that we conduct our business; paying attention to the smallest detail—putting in that little extra effort to make a little better product—making it a point to know our customer's business and problems. We appreciate these comments. We are always glad to be able to give the kind of service which prompts them. Ask your Armstrong representative for information about the ways we can serve you or write direct to Armstrong Cork Company, Glass and Closure Division, 2309 Prince Street, Lancaster, Pennsylvania.



ARMSTRONG'S GLASS



1 This is the well-remembered "Khaki Set." It was issued to the doughboys of World War I.



2 Remember the neat-'n-handy Gillette "Brownie"? It, too, made its mark in many a male heart around 1920.



3 The Gillette Cigarette Set, 1924. "Remove the tray and you have a cigarette case ready for use." A dual-purpose package 'way back then!



5 "Treasure Chest," early 1930's. When the 50 slick-shaving blades were used up, you had a nifty box for links, clips and collar buttons.

## Since 1917

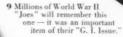
FARRINGTON has been making the Planned Packaging that has helped to make hundreds of millions of sales for Gillette.



6 "Red and Black Set," 1935.

7 Gillette's "Exposition Model" in 1939-40 tied in nicely with New York World Fair, even to the color theme.

8 The "Jewel Case" in 1940 was a new switch on the 1930 "Treasure Chest."



10-11 And here are two of the current Gillette products...the popular "Milord" (left) and the luxurious "Aristocrat" — today, as ever, Packaged by Farrington.





FARRINGTON MANUFACTURING COMPANY

GENERAL OFFICES: 80 ATHERTON ST., BOSTON 30, MASE.
CANADIAN PLANT: FARRINGTON MFG. CO., LTD., 1181 BATHURST ST., TORONTO 4





DISPLAY PACKAGES - JEWEL CASES - METAL SPECIALTIES - CHARGA-PLATE SERVICE

'Nashua's Knack' Pays Off in Better Packaging, Wrapping, Sealing, Labeling

For Quality
Controlled Velours
Nationally Advertised
Brands look to

ELGIN AMERICAN PEARLS
14089
TURQUOISE COTTON
VELOUR

**NASHUA** 

HALLMARK CARDS 14328 WHITE RAYON VELOUR If your product can profit by the dramatic richness of cotton or rayon velours for packaging or display . . . go all the way with Nashua quality controlled velours.

"Quality control" adds uniformity of shades and uniformity of working properties to the eye-appeal and feel-appeal of velour — Nashua ships *precisely* what was specified in shipment after shipment. 14 shades of cotton velour and 17 shades of rayon velour are available in stock for prompt delivery. Sizes 26½" to 40" Write for samples of velour at its workable best — to Nashua.

U. S. PLAYING CARD
(Canasta Sets)
1428
TAN COTTON VELOUR

RICHELIEU PEARLS 1456 RED COTTON VELOUR THE MAILLARD CORP.
(Chocolates)
1428
TAN COTTON VELOUR

EVANS CASE CO. (Lighters) 1409 GREY COTTON VELOUR

BALTIMORE C

CHICAGO

NASHUA BRANCH OFFICES
AGO DETROIT, LOS AN
COLUMBUS, O.

LOS ANGELES

ELES NEW YORK SAN FRANCISCO

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

NASHVA

MARIA 188 ASS

## Modein packaging



Vol. 24 No. 1 September 1950

## Everything but the squeal

THAT'S WHAT THE MEAT PACKERS ARE PUTTING IN PACKAGES THESE DAYS,

SPURRED BY THE SELF-SERVICE COMPETITION FOR BRAND-NAME FAVOR

Thanks to improved packaging materials and equipment, plus a growing appreciation of the importance of better packaging as a merchandising weapon, the meat-packing industry is making rapid packaging progress. Important developments are taking place at the packer levelas distinct from the pre-packaging that is being done at the retail point.

To be sure, not all of the complex problems involved in the consumer packaging of meat products have yet been solved; but the industry has indeed come a long way in this respect since World War II and a review of significant developments appears appropriate at this time.

As a field for packaging, meat is worth thinking about. According to the American Meat Institute, total U. S. expenditures for meat in 1949 reached approximately \$1 billion.

At times, the meat industry has been chided for moving rather slowly toward improved packaging in comparison with other segments of the food field. However, there are several good reasons for this apparent lag. Important among them are the highly perishable nature even of processed meat products, particularly when reduced to consumer-sized portions, and the fact that the industry's basic distribution system has long differed from that used for most food items. Under the meat-industry pattern, fresh meats and a number of processed items reach

the retail outlet in wholesale cuts or quantities, with the butcher breaking them down into their final consumer form and handling the necessary wrapping or packaging.

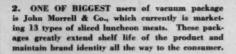
On fresh meats, the retail butcher continues to perform this function in most instances, but the picture has changed considerably on many types of processed meats. World War II, for example, gave canned meats added impetus; many of the canned products which were originally developed for military use may now

be found, in modified form, on the shelves of the retail store. In the years since Arthur Libby and his associates first canned corned beef in 1872 in their four-sided, functional container, canned meats have multiplied in variety and have won a secure place for themselves in the modern household. Even prior to World War II, they were making rapid progress; in the prewar period between 1937 and 1940, the percentage of urban families eating canned meat rose from 18 to 70%. A major factor in this

VACUUM PACKAGE, pioneered by Armour & Co. three years ago
on sliced bacon, has been extended to cold cuts. Armour adopted the
shingled arrangement for maximum display. Note the close conformation
of the laminated film packages to the slices, due to withdrawal of air.











3 and 4. SPECIAL MACHINE supplied to pull vacuum and seal vacuum packages three at a time has capacity of 200 lbs. of sliced luncheon meats per hour. Packages are ejected (right) by gravity as multiple-head machine revolves. Weighing, filling and loading of the film packages is a fast hand operation.



5. NON-VACUUMIZED Swift & Co. packages represent the school of thought which holds that luncheon meats need protection from light. In these experimentally marketed packages, a die-cut greaseproof board is placed atop the stacked slices before the cellophane wrap is applied.

rapid rise was the popularity of the new canned spiced meats, with Spam the acknowledged prototype.

With canned meats, emphasis in recent years has been upon the introduction of new products, including combinations of meat and other foods, rather than on actual packaging innovations. The latter developments have revolved largely around the use of newly developed plastic films and other packaging materials which have enabled the packer to get his product before the consumer in a more convenient, more attractive form. In many instances, this has been a matter of packer pre-packaging of meat items which formerly required ultimate preparation and wrapping at the retail store level. In other cases, it has been merely a matter of improving upon earlier package forms-as in the case of sliced bacon, which has been packaged since 1915.

The strongest factor in this entire trend to improved meat-product packaging has been self service. Speaking before the 51st annual convention of the National Assn. of Retail Grocers, Arthur C. Nielsen, prominent marketresearch authority, declared that through self-service stores, sales per employee increased 46% between 1939 and 1948. "The average sales per employee (in grocery stores) were once \$10,254 a year," he said. "That figure has jumped to \$33,125-or \$15,002 allowing for the depreciation of the dollar."

The present article is concerned solely with meat packaging which is performed in the plant of the packer or meat processor. Retail-store prepackaging involves considerations which are, in most respects, quite

Of greatest interest to the packer is the fact that packaging lifts his product out of the "anonymous" class, giving him a definite sales unit which can be identified and merchandised all the way through to the ultimate

The 1-lb. frankfurter package which has come into general use during the past couple of years exemplifies how packaging has taken a meat product which looks exactly the same whether it comes from Plant A. B or C and given it identity and merchandising appeal. The general practice among major producers is to platter about eight or 10 frankfurts on a backing board or tray and overwrap them with cellophane, producing a convenient unit package. Identity and sales copy appear on the supporting board and/or on the cellophane, and in many instances the trade name is carried to the individual frankfurts by means of heat-sealed bands.

#### The flexible vacuum package

One of the most important current trends is the adoption of flexible vacuum packages for sliced luncheon meats. This type of package made its first appearance in the meat field in 1947, when Armour & Co. introduced it for bacon.1 Mickelberry's Food Products Co., Chicago, was one of the first, if not the first, producers to adopt the vacuum package for sliced luncheon meats. During the past year a number of other firms, including some of the largest packers in the U.S., have begun to use this

<sup>&</sup>lt;sup>1</sup> See "Flexible Vacuum Package," Modern Packaging, June, 1947, p. 100.

new package form.<sup>a</sup> Perhaps it is not too rash to predict that it may become the standard package for sliced luncheon meats packaged at the manufacturer level. The same type package is also being successfully used for sliced cheese.<sup>a</sup>

The package generally used so far for this job consists of a Pliofilm-cellophane lamination which will hold the vacuum of 25 in. or more required for effective protection. It is vacuumized and heat sealed on specially developed equipment. The chief virtue of the vacuum package is the fact that it greatly extends the shelf life of sliced luncheon meats, which are highly perishable and subject to light deterioration because of the large amount of cut surface exposed. Tests indicate that a product so packed, when properly refrigerated, may be kept as long as two or three weeks and remain in perfectly salable condition. means that packer deliveries may be scheduled on a less frequent basis and that the retailer need have no great anxiety about carrying products in the refrigerated case considerably longer than with non-vacuum packages.

John Morrell & Co., fifth largest of the nation's packers, recently launched one of the most ambitious programs to date involving the vacuum package. Morrell is now packaging 13 items in this manner—two under the Yorkshire label and 11 under the wellknown Morrell Pride label. All packages are of 8-oz. size. Products include pure pork luncheon meat,

2 "Vacuum Pre-Packaged Meats," Modern Packaging, May, 1950, p. 99.

See "Cheese in Vacuum," Modern Packaging, April, 1950, p. 192.



minced luncheon sausage, loaf with macaroni and cheese, Picloaf, old-fashioned loaf, spiced luncheon meat and cotto salami. An accompanying illustration shows typical packages in this group.

Morrell's packages are designed to form an attractive frame for the sliced meats, given full visibility by windows on both front and back surfaces. Prominent copy near the top of the packages explains that they are vacuum packed and that they require refrigeration.

These new Morrell items are now in production at three plants, with two of the special vacuumizing and sealing machines at the main plant in Ottumwa, Iowa, and one each at Sioux Falls and Topeka. Combined capacity of the machines is 800 lbs. of sliced luncheon meats per hour.

Largest packer to offer sliced cold cuts in the vacuum-type package is Armour & Co., which pioneered the vacuum bacon pack. In recent months, Armour has been market testing a sizable group of sliced luncheon meats in several metroplitan areas, with highly favorable results, it is said. Basically, the Armour package, as well as the equipment used, is similar to that employed by Morrell and others. Package design features the Armour logotype with red star, following the company-wide redesign adopted by the company several years ago. The Armour packages also carry a distinctive lacey border which makes the sliced meats stand out more clearly through the transparent window.

An innovation in the Armour packages is the use of a shingled arrangement of the meat within the <sup>1</sup>/<sub>F</sub>lb. package, rather than the stacked arrangement used by other packers. This treatment, long standard for sliced bacon, results in a flatter pack-

7. PIGTAIL TWIST at each end of tightwrap package is given by holding film-wrapped package against the revolving belt. Rochester Packing Co. uses this special method and equipment for frankfurters, sausages, loaf meats, butts. 8. WIDE VARIETY of products packed by Rochester in twistseal package is indicated by this assortment of meat packages. The labels are applied inside the wrap, which may be made of Pliofilm, cellophane or other film, depending upon the protective requirements of the product. PHOTOS COURTESY ALLBRIGHT-NELL CO.







9. SARAN FILM is rapidly replacing animal easings for liver sausage and similar products. Material is available as seamed or seamless tubing that is stuffed and string tied, then cooked, shrinking the film tight.

age which is rectangular rather than square, approximately doubling the display area. Thanks to the use of the vacuum envelope, it is possible to use the shingle type of pack without risking some early discoloration of the exposed slice ends.

#### Frozen meats

Although frozen-meat products have not lived up to the optimistic predictions made by some enthusiasts, they are making definite progress. Much of the early work on consumer packaging of frozen meats was done by relatively small, independent organizations, but recently several of the major packers have also entered the field in a limited way. With frozen meats, as with packaged meats in general, the attitude of meatindustry unions has been a major problem. This situation varies according to locality.

Larger packers having frozen-meat items in at least limited distribution include Armour and Swift. Armour's line includes about 40 products, of which nine are available in consumer-type packages, introduced during the past year. Other items are packed in 10-lb. boxes for restaurant and institutional use; these first began reaching the trade in 1946. A high-speed "blast" freezing technique which is said to prevent breakdown of meat tissues and resultant loss of juices is a feature of Armour's frozen-meats line.

Green and white folding cartons with a semi-circular window affording a look at the product are employed for the Armour consumer items, which are described as ideally suited for between-meal snacks and quickly prepared meals. Whether cooked in frozen form or after preliminary thawing, they are ready in a matter of minutes. Among products in the Armour group are beef steakettes, beef roll steaks, hamburger patties and veal cutlets. The beef steakettes are packed six 2-oz. portions to the package, while the other packages contain four 3-oz. portions. The frozen items are conveniently merchandised by the retail outlet, requiring no cutting or wrapping. Large stocks may be kept in the frosted-food self-service cabinet without fear of waste or spoilage of the product.

The institutional trade has proved to be an excellent outlet for the larger packs, requiring a minimum of refrigerated space and affording a close control on the number of portions used. The fact that the portions are

of uniform size further simplifies the restaurant operator's problem.

Swift & Co. has been market testing a group of frozen fancy-meat items, including lamb liver, pork cutlets, pork tenderloins, liver and bacon, beef loaf, oxtail joints, veal loaf, veal sweet-breads, veal liver and beef sweet-breads. They are packed in paraffined folding cartons lithographed by six-color process on solid manila box-board. The cartons have no window, but feature the Swift's Premium trademark in conjunction with mouth-watering full-color illustrations of the meats as they appear when ready to serve.

#### Bacon innovations

Although sliced bacon, one of the packers' most important volume products, has been packaged for a good many years, changing conditions in retail merchandising have made bacon a fertile field for packaging development. Some of the trends in bacon packaging were discussed in a recent article which described Morrell's newly adopted wrapper and the type of equipment which applies it. At present, the industry seems to be trying to strike a proper balance between visibility and protection.

Qualified authorities express widely divergent viewpoints on the subject. According to a representative of one of the major chain-store organizations, consumers are increasingly insistent upon seeing as much of the product as possible, even if protection against light and other factors must be sacri-

4 See "Bacon and Eggs," Modern Packaging, April, 1950, p. 148.

10. STRETCH-WRAP of Pliofilm is a new development pioneered by the Marhoefer division of Kuhner Packing Co. Package in the foreground shows how the film is gathered in a small twist on the side, which is covered by a pressure-sensitive label. The thin film permits the desirable venting of carbon dioxide.

11. EXPERIMENTAL MACHINE used by Marhoefer draws the heated Pliofilm through a circular opening. The meat is dropped on the film, which stretches, is cut off and is then automatically wrapped and twist sealed. The speed of the machine is 20 packages a minute. PHOTOS COUNTESY GOODYEAR TIRE A RUBBER CO.





ficed to some extent. Other experts stoutly maintain that product protection is paramount and that women will willingly buy bacon in a blind package if they have confidence in the brand name.

Many packers are now using, for both pound and half-pound slicedbacon packages, some type of backing board or folder in combination with a cellophane overwrap, either printed or unprinted. In one such package which has enjoyed wide adoption, being used by Hormel, Wilson's, Mayer and others, the fold-over panels of the backing board have side-wall cutouts, causing the end panel to follow the contour of the shingled bacon. This produces a tight, neat package which is easy for the housewife to handle. The front and back panels of this style of package afford adequate space for brand identification, cooking suggestions and other copy. It conceals irregular slice lengths and wraps economically either by hand or on semi-automatic equip-

Maximum product visibility is featured in a somewhat different style of package developed by the Great Atlantic & Pacific Tea Co. for its Allgood brand of sliced bacon. This package consists of an unprinted cellophane overwrap over a greaseproof backing board which folds over across the bottom approximately 2 in., forming an identification and pricing panel. Cooking suggestions appear on the back of the board. Printing is in red and brown, with reverse white lettering in the trade name and the words "Sliced Bacon."

#### Conforming tight wraps

In recent years, numerous attempts have been made to develop equipment and methods which would produce a tight, secure wrap for irregularly shaped meat products and items which vary considerably in weight. These efforts have been expedited by the availability of new types of plastic films and other materials having the desired protective features.

One of the pioneer methods of obtaining such a wrap, evolved by H. A. Rumsey of the Rochester Packing Co., Rochester, N. Y., is now available to other packers through the leasing of the necessary equipment from a Midwestern supplier. Actually, there are two pieces of equipment involved—a wrapper and a twister. Using either printed or unprinted cellophane

or Pliofilm in roll form, the wrapping machine cuts off a single wrapper of the proper size. When cellophane is used, the web of film is automatically moistened by a roller and a line of adhesive distributed along the edge of the sheet. The product is placed in position on the film and hand wrapped with the glued edge overlapping, then passed to the twister for completion of the wrap. With Pliofilm, the operation is essentially similar, except that an electric sealer is utilized to seal the overlapping edge.

The function of the twisting machine is to rotate the product, forming a tight "pigtail" twist at each end of the package. This is done by grasping the open ends of the wrapper and holding the product against a rotating belt. One twister will handle the output of two wrapping machines. Savings in material costs are obtained by using the wrapping material in roll form and by permitting the use of smaller wraps than would be required for hand wrapping. The printed transparent wrappers which may be either clear or tinted, enhance the appearance of the meats, give them brand identity and permit them to be sold self service.

Where conveyor belts are used to bring the product to the wrapping machines and convey the wrapped meats to the weigher, a production of more than 650 smoked butts per hour has been achieved by a team of three operators. The system may also be used for frankfurters, meat loaves, picnics, linked pork sausage and cutoff portions of processed sausage.

One interesting pack devised by the Rochester Packing Co. is a 1-lb. frankfurt package for the company's Arpeako brand frankfurts, containing nine of the skinless-type sausages. For this pack, the frankfurts are assembled in forming trays and a rubber band temporarily placed around each group to hold them together until picked up by the operator of the wrapping





12. POSTWAR ENTRY in stretch-wrap field is new Cry-O-Rap film containing vinylidenc (saran) copolymer. Film comes in bag form. With special equipment ham is inserted, air exhausted, bag sealed by wire twist and film shrunk tightly by dipping in hot water. Color, flavor, weight retention are qualities of the greaseproof film.

13. REMARKABLE conformation of the Cry-O-Rap to irregular contents is illustrated by this skin-tight overwrap on pulp tray filled with cut-up chicken.



PHOTOS IT AND IS COURTESY DEWEY & ALMY,

14. PREFABRICATED bag instead of wrap is used by Hunter for whole hams, cutting packaging costs. The three-ply bag has a protective structure of parchment, gray ham paper and printed outer layer. Two sizes of bags accommodate hams from 10 to 18 lbs. Seal of the bag is effected with acetaic tape.

machine. The bands are removed just before the frankfurts are wrapped in Pliofilm. Using two wrappers in conjunction with one twister on this operation, Rochester Packing Co. attains an average production of 700 packages per hour.

The Marhoefer Division of Kuhner Packing Co., Chicago, is the first meat-packing organization to make regular production use of another type of tight-wrapping unit which was developed several years ago as part of a packaging research program sponsored by The Curtiss Candy Co., Chicago. This machine, like several other units devised by the same inventor for wrapping various fruits and vegetables, is designed to take advantage of the special characteristics of Pliofilm-notably, the fact that the material may be stretched considerably when heated, reducing it to a

NEWPORT BRAND

REWPORT BRAND DRIED SEEF

15. ACETATE-FILM liner provides all-over greaseproof surface as well as a window in this popular type of carton, used by J. M. Welch & Cp. for dried beef. Window view of most meat products is considered very important in self-service selling.

thinner gauge and causing it to draw up tightly around the wrapped product upon returning to room temperature.

Pliofilm has the property, when stretched very thin, of permitting carbon dioxide to pass through readily, enabling meats and other food products to "breathe" while retaining moisture. This quality recommends it for 1/s-lb. chunks of liver sausage, veal bologna, chicken loaf, ham sausage, etc., which are among the items Marhoefer has wrapped commercially on this equipment.

The wrapping material is placed on the machine in continuous roll form. The web of Pliofilm then travels over a cavity where, by means of a vacuum, it is formed into a bubble. The sausage, which has previously been cut to length in a mitre box, is then placed in the "pocket" which is automatically closed by means of bands which grip the neck of the Pliofilm and then actually twist the closure to make it tight. A hot wire drops down onto the top of the wrapping material to make the cut-off and the wrapped product is dropped through the bottom of the stretching cylinder, completing the cycle.

The required uniform stretching of the Pliofilm on this unit is obtained by the selection of hydraulic pressure, combined with mechanical pressure. The speed of the machine, as used in the Marhoefer plant, is about 20 packages per minute. After removal of the wrapped meat from the unit, a pressure-sensitive label is placed over the "pigtail" closure to make a completely sealed package and provide the necessary identification, allowing room for marking actual weight and selling price.

In addition to their neat appear-

ance, the Marhoefer stretch-wrapped items have excellent keeping quality and may be handled without damage, it is said, due to the toughness of the sealed Pliofilm covering. Exclusion of oxygen also retards the effect of harmful light rays. The company expects to install two additional wrapping units of improved design in the near future.

The special thermoplastic film known as Cry-O-Rap<sup>6</sup> is used in another shrink-wrap system which has proved effective for various meat products—especially irregularly shaped objects. In this system, the product is inserted in a bag of the special film and air exhausted by vacuum. The bag is sealed by twisting. A momentary immersion in water at 200 deg. F. shrinks the film to produce a tough, tight-clinging "second skin."

Basically, according to the manufacturers of the film, smoked pork products and smoked meats in general, when packaged by the above method, show extremely good preservation, with freedom from souring and an excellent retention of color, smoke aroma and full package weight for periods up to six weeks. The material is highly grease resistant and consumers are pleased by the grease-free surface. The removal of air and hence the absence of oxygen within the package retard mold development, which is a particularly serious problem in summer months.

Smoked pork shoulders, liverwurst and ready-to-eat hams are among the types of products now being handled in this manner, with the

16. STEPS in rapid hand packing with the new "wallet" type of window carton are illustrated by this sequence. Carton blank has cellophane liner pre-attached. Carton flaps are brought around and locked in the back, providing an attractive, greaseproof, self-service package. PHOTOS COURTESY MARATHON CORP.







<sup>&</sup>lt;sup>5</sup> A. Dow Chemical Co.-Dewey & Almy Chemical Co. formula, employing a vinylidenetype copolymer (saran), replacing the rubberlatex film formerly known as Cry-O-Vac. See "New Cry-O-Vac," Moosens Pacekachro, March, 1948, p. 115. The material is now known as Cry-O-Rap and the process as Cryovac.

Colonial Provision Co., Boston, one of the firms most active in using this package. Depending upon volume requirements, the system is handled in two different ways. For the small operator, a small unit is utilized which employs a twist seal on the bag after the air has been exhausted. Product is first placed in the bag (printed or unprinted) and the neck of the bag is grasped around a vacuum nozzle in order to withdraw the air present. Then a wire tie is automatically twisted around the neck opening, effecting a tight seal. Next the product is placed in a dip tank of water maintained at a temperature of 200 to 205 deg. F. and immediately withdrawn, causing the film to shrink tightly around the product and removing wrinkles and pockets which might cause dehydration and rancidity. With this set-up, from two to four packages per minute can be handled. For larger production, a semi-automatic unit is available which vacuumizes and heat seals the bags in one operation and can handle from four to six packages per minute,

Such meat products as smoked butts and picnic shoulders have been successfully wrapped on an experimental basis on another type of equipment originally developed for wrapping lettuce and similar hard-to-handle items. Results were described as favorable and although this operation is not on a production basis at present, it is indicated that with minor modifications this machine would be well adapted to the wrapping of many meat products. In this unit, the item to be wrapped is placed in a cavity, where the cellophane wrapping material is automatically formed around it to produce a tight, neat package. Corners of the cellophane are gathered at one end of the product, pinch sealed and trimmed. It is estimated that a semiautomatic unit operating on this principle would be capable of wrapping about 12 items per minute. It could, if desirable, be equipped with an automatic sheeting device permitting the utilization of roll-stock cellophane,

#### New ham bag

Hunter Packing Co., East St. Louis, Ill., was reportedly first on the market with a new type of ham bag which is attractive in appearance, offers effective product protection and greatly reduces packaging costs. The bag is fabricated from three layers of paper—the inner parchment, a layer of gray



17. WINNER of Grand Prize in 1949 Folding Paper Box Competition, and illustrative of eye-appealing design favored by large packers, is this line of six-color lithographed cartons for Swift frozen meats. All the meat packers are keeping a close eye on frozen-meat possibilities.

ham paper and the printed outer wrap—which are formed into a bag after being die cut and the edges secured by stitching with polyethylene tape. Bags are shaped to conform as closely as possible to the shape of a ham—a tricky problem because of product variations. At present, Hunter is using two patterns: one accommodates hams in the 10- to 14-lb. range and the other is suitable for hams weighing 14 to 18 lbs. With this bag, there are no loose twine or open seams to detract from the quality appearance of the product.

A thumb notch on the open edge of the bag permits easier handling and facilitates opening the bags, which are loaded by placing the open end over a stuffing horn. Hams are then pushed shank end first into the bag and transferred to a conveyor belt, where operators fold the ends in three simple operations which cause the bottom of the bag to conform snugly to the butt end of the ham. The fold is made in such a way that the bag closure is effected with a single strip of laminated acetate tape. Soon after introducing this bag, Hunter Packing Co. was able to reduce its labor cost on ham packaging by 50%. It was learned that the company's entire output of hams could be packaged with half the personnel formerly required and in considerably

less floor space, in comparison with the usually practiced method of manual ham wrapping.

#### Cartons

Cartons continue to play a vital role in the packaging of meat-industry products. Packaging-material suppliers have given close attention to the development of cartons which are quickly set up manually or with relatively simple equipment and are adaptable for a variety of products. One such package, now in use by a number of packers, was described in a recent article." This folding carton has an integral liner of acetate film which provides the desired greaseproof qualities and forms a window behind the die-cut opening. It is quickly set up by means of a foot-operated mandrel which opens the package and facilitates loading and closing.

Another type of folding carton which requires no special equipment and is effective for either store-level or packer-level operations has been widely adopted for such items as linked fresh sausage, sliced bacon, dried beef, frankfurters, ground meats and other processed meat products. It affords positive brand identity and (This article continued on page 199)

See "Smorgasbord Girl," Modern Pack-AGING, Feb., 1950, p. 118.

# Acetate and

#### CARTER'S KEYS LINGERIE COLORS TO THE PACKAGE DECORATION

#### AND SCORES TWO SUCCESSIVE HITS IN SPECIAL SEASONAL PROMOTIONS



ENTHUSIAM of salespeople for the plus value of the gift box was a big factor in success of original "Violets in the Snow" package last Christmas. The lingerie came in special violet shades and the acetate box lid was silk-screen printed with violet and snowflake design motifs.

There's nothing new about color promotion in the fashion world and transparent packaging is an already well-established medium. But the combination of the two—one complementing the other—has led to a promotional program which has brought new drama to lingerie merchandising. One success has led to another and it looks like the idea is here to stay.

The idea was born when the William Carter Co., old and respected quality lingerie house, planned its big Christmas promotion last year. A

color promotion was decided upon. Nightgowns, bed jackets and peignoirs were dyed in two original violet colors—one a pale tone and the other deep purple. The name "Violets in the Snow" set the keynote for the entire promotion.

With unusually colorful merchandise and a colorful name, thoughts of Carter's planners naturally turned to packaging that would show off the merchandise, tie in with special advertising and window display, and enhance the appeal of the name. Once it was decided that the gift promotion warranted more than the usual investment in packaging, it was obvious that transparent packaging would be the answer. Then Carter's went one bold step farther and decided to make each transparent container a unit for a single garment and to make the container so attractive that retailers would be persuaded to stick with it through the ultimate delivery to the customer, rather than transfer the garment to their own gift box as is the usual practice.

Because of retailer's preference for their own gift boxes, lingerie—except for a few popular-priced, multiplegroup items—has traditionally been packaged three to a paperboard set-up or folding box. Carter's believed that distinctive, individual, transparent packaging would move merchandise faster in gift seasons and therefore build good will for both Carter's and its customers.

They were right. The entire promotion was one of the big hits of the last Christmas season—a triumph of right planning and merchandising. From coast to coast came reports of stock being sold out in from one to three days.

Immediately plans were started to develop a similar idea in time for a Mother's Day promotion. This time lovely, delicate hyacinth shades—both blue and pink—were selected for the lingerie and the package promotion became "Blue Hyacinths." A second success was scored and now Carter's is busy with a follow-through for Christmas, 1950.

Simplicity and good taste have given these packages appeal. For "Violets in the Snow," a regular extension-edge, set-up box base (made in Carter's own plant) was covered with violet-colored paper and telescoped with a clear acetate lid printed on a multicolor cylinder press with vio-

flowers

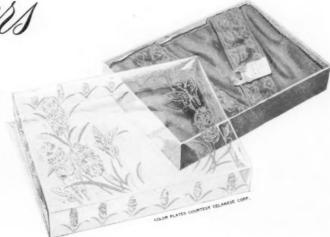
let bouquets in light and dark violet inks with white highlights. For "Blue Hyacinths" the acetate decoration was changed to sprays of blue hyacinths with light, spring green leaves (see color pate). In both cases the border design was kept light and airy, leaving plenty of clear acetate area through which the garment itself could be seen. To enhance the re-use appeal of the box, no name, trademark or other sales copy appears on it; the only identification with Carter is on the information tag which is attached on top of the folded garment so that it shows through the transparent cover. The tag carries the same design and colors as the box lid.

A major factor in the success of these packages was the unusual amount of well-coordinated promotion, publicity and advertising done jointly by Carter's, Celanese Corp. of America (as the supplier of the fabric' used in the lingerie) and the advertising agencies of both companies.

Sample runs of jersey and laces were dyed in the special colors, dummy boxes were prepared, four-color advertisements for national magazines were made ready and promotion kits were organized with ideas for windows, counter displays and local promotion in radio, press and television.

Then, a group of merchandise specialists armed with sketches, promotional material and the dummy boxes were sent ahead to sound out buyer reaction—first, to the special color idea and, secondly, to the plan for a "package" promotion in a gift season. Those interviewed favored both.

Two special dyes for the jersey and lace trim were perfected and the garments carefully finished. Exceptionally good-looking nightgowns were produced to sell at retail for \$5 and \$6, a robe for \$12.95 and a bed jacket for \$6.95. This selection of garments and prices offered the variety and the span of appeal considered necessary for a gift-packaged specialty. Although the four garments varied widely in style and appeal, they were all unmistakably tied in to the "Violets in the Snow" promotion by color, by style and by packaging. Folding



HYACINTH BLUE was appropriate for spring promotion, starting with Mother's Day and carrying through June. The re-use value of the box is furthered by the fact that it carries no name or advertising matter; Carter's products are identified only by the tags attached to the garments.

was worked out so that only two package sizes were required.

Over and over, the package was credited by retailers with being the key to the success of the promotion.

Display departments, usually committed for months in advance, quickly seized on the display possibilities of the stackable package and created island displays, counters, windows and special gift "spots." In New York a Fifth Ave. department store opened a morning's sale with a well-designed

"Violets in the Snow" window and extensive inside displays, and by noon stock, sizes and styles were so broken that the window had to be raided.

The Mother's Day promotion of Blue Hyacinths was a virtual repeat of this success—only bigger, in contradiction of the usual seasonal sales pattern. According to the Federal Reserve Board's department-store sales figures, Mother's Day sales of knit lingerie in 1949, for example, averaged (This article continued on page 178)

AISLE DISPLAYS, window build-ups, local and national advertising helped put over Christmas promotion of Violets package. At Harzfeld's, Kansas City, mannequin and live model display peignoirs at aisle counter.





SOMEWHERE IN KOREA, South Korean soldiers help unload cartons with the new C-4 Ration, basic menu of our troops in this conflict. Cartons are of high-grade container board.

# War and packaging: where do we stand?

WHILE NATIONAL POLICY PAINFULLY EVOLVES, PACKAGERS CAN EXAMINE

THESE INDICATIONS AS TO WHEN AND WHERE A WARTIME ECONOMY MAY PINCH

As this issue went to press, two months after the outbreak of hostilities in Korea, package suppliers and users alike were still looking anxiously to Washington to see whether fair weather or storm signals would be hoisted. Having so recently struggled through years of shortage and substitution, packagers could be forgiven if they showed more concern than the situation, at the moment, seemed to justify.

But the packaging field wanted to know (1) what they might do directly in the military and defense program and (2) what would be left for them in the way of materials and supplies for normal production after the necessary priority items for the military were extracted from an already strained peacetime economy. So far there was very little official information on either point. High questions of national policy remained to be decided.

Were we arming merely to put down a localized rebellion against world authority—or for a world-wide, to-the-death fight against Communism? Would our goal require partial or all-out mobilization? Would it be the Truman Plan or the Baruch Plan? Until these questions were settled, nobody really knew anything.

So far, the packaging field had felt no shortages that could be attributed directly to the war effort. Production was sailing along at the highest level in history; where packaging supplies were tight, they were already tight long before June 25 and the pinch was due to the very level

of production, rather than to any military demands that had suddenly developed.

Whether due to enlightened self restraint or to sheer inability to obtain additional allotments from sources already strained, there was no indication in the packaging field, so far as this magazine could discover, of any real hoarding of materials.

As stated in an editorial last month, MODERN PACKAGING will not be a party to rumor and speculation; it will report and interpret only such information as can be obtained from reliable sources and it will fight scare buying as being not only a disservice to the country, but a stupid practice actually contrary to the selfish interests of those who indulge in it.

Whether it is to be limited or an

all-out mobilization, there are certain basic facts to be examined, some obvious military needs, and a few logical conclusions to be drawn, which may help in packaging planning.

#### Facts and indications

There is this difference between 1950 and 1942: last time industry generally had some cushion of unused capacity to soak up the first shock of military demands, stiff though they were. This time industry, although generally doubled in capacity over the year 1942, is already operating at a record peacetime rate; therefore any additional demands, large or small, are certain to be immediately felt. This fact is brought out again and again in the examination of critical packaging materials which appears below.

With few exceptions, the materials of war today are the same as they were five years ago; therefore, if, when and to whatever extent they develop, shortages will be familiar ones. It is logical to expect that controls and allocations will be re-applied in reverse of the order in which they were lifted after World War II.

Steel is the basic material of war; steel is the industry that has expanded in the last five years least of all major American industries—therefore, it is as certain as anything can be that steel and tinplate will be among the first packaging materials affected by allocations or military set-asides.

The late-lamented M-81 can-allocation order was the last to go after the last war, having finally been removed just a year ago. It is logical to expect that M-81, or something like it, will be the first to be reinstated this time and that such can applications as dog food, beer, coffee and lard—unessential or readily shifted to substitutes will be the first restricted.

That is about as far as Washington information—unofficial, but authoritative—goes at this time. There is a strong possibility that first steps will be limited set-aside orders, for immediate military needs, of such things as steel, tinplate, boxboard and aluminum, leaving producers free to distribute pretty much as they wish the bulk of these materials.

#### The brighter view

Generally, Washington opinion on the civilian-packaging outlook is brighter than is found in industry itself. Admitting the difficulties posed by the present period of uncertainties, some Government sources predict that after about six months of juggling allocations of materials—if actual warfare does not spread beyond Korea and if no more than 2,000,000 to 3,000,000 troops are to be supported—then the home-front economy may straighten up on an even keel and sail through with very little damage.

In packaging there are certain obvious bright spots, such as the greatly expanded capacity of the glass industry to supply substitutes for metal containers. The paper and paperboard mills, too, have been enormously expanded and although that industry currently is reported as operating in excess of rated capacity, it was only a year ago that it was coasting at 80 to 84% and worrying about its markets. Indications are that paper inventories are rather high.

Dark spots are evident in polyethylene (which has become very important in the military picture since the last war), other plastic films and cellophane. Due to its rapid growth in packaging, polyethylene resin had become short before Korea and now military demands are certain to be substantial. Many plastics and synthetics face the danger of shortage of certain chemical ingredients needed in war. In the case of cellophane, which has relatively small military application, it is just that a severe shortage already existed and now the prospects for increased production facilities are

This report will not attempt to cover the question of prices. A general flurry of inflation in nearly all commodities followed quickly on U. S. entry into the Korean fighting and at this writing the situation is much too volatile to pin down. By September it may have settled down, or it may have exploded into a general runaway. It should be noted, however, that paper and ink prices are tending to move upward and that the Sylvania Division of American Viscose Corp. early in August announced a 4-cents-a-pound increase on cellophane. Certainly packaging prices are not going down; it is anybody's guess at this juncture as to how far they may go up.

#### What to do?

While the situation is slowly working itself out, what can packagers do to help themselves? Certainly a first step would be an examination of

#### Is this the plan?

Here's the nearest thing yet to an official Government pronouncement on materials-control plans. According to Business Action, publication of the Chamber of Commerce of the United States, it's the substance of what H. B. McCoy, chief of the Office of Industry and Commerce of the Commerce Department, told a chamber roundtable luncheon on Aug. 2:

That a separate new division, probably called Defense Production Administration (DPA), will be established in the Commerce Department, with two major branches—a Bureau of Industry Operations and a Program Bureau.

That the initial order—that of controlling inventories—will apply at first at the manufacturing level and possibly extend to wholesalers and retailers.

That inventory reports, as simple as possible and perhaps to be filed quarterly and applicable only to vital materials, will be required of business firms.

That allocation of scarce and vital materials will be immediate, with voluntary methods to be used to the fullest extent possible.

That it is expected that voluntary allocation methods will soon give way to limitation and conservation orders and priorities.

That the rate of stockpiling at present is very heavy and current recommendations are to speed up even this rate considerably.

That at present it is contemplated that the regular agencies, including Commerce, Labor, Interior and Agriculture Departments and the Federal Reserve Board will carry out the actual mobilization programs.

That he thought if price controls were put into effect a separate price-control agency would be established.



BASIC RATIONS in use in the Korean area are the three illustrated above-5-IN-1B, C-4 and 1A-1. The components of the new Individual Assault Ration 1A-1 are shown at the right. Components of the C-4 Ration are shown in photograph on the opposite page.



BIDS WERE ASKED July 26 on components and assembly of 3,000,000 of this pocket ration. Cigarettes, matches, tissue, chocolate and gum are heat sealed in polyethylene bags which, with remaining six items, are heat sealed in laminated foilkraft bag. This, with two cans, then goes in folding carton.

current packaging to eliminate extravagant and purposeless use of material, whatever it may be. For example, in spite of what we all know about the shortage of cellophane, there can still be found instances of wrapping in three or four layers of cellophane where only decorative, not functional, ends are served; two or three of these layers could be stripped off with no damage to sales.

It would save a great deal of confusion if brewers and coffee roasters and some other can users would begin to use a few glass containers to acquaint themselves with the problems and the necessary conversions.

Finally, packagers and suppliers, in their contacts with Washington, can encourage a more efficient application of packaging to military items. A serious criticism from one who has been close to military packaging in the last war and since is the fact that allocations of strategic materials seemed to stop short of protection of the item once it was produced and ready to ship; he was, for example, denied a few ounces of aluminum for proper packaging of vital parts of a million-dollar airplane which itself contained thousands of pounds of the stuff-the result being that other packaging materials had to be excessively and wastefully used.

Some indication of the current situation of important packaging materials in relation to apparent military needs may be found in the following paragraphs and accompanying tables.

#### Steel, tinplate, tin

Indications of a serious home-front shortage of steel, however limited the scale of war may be, are too obvious to need emphasis. How much will be available for packaging will largely depend upon what happens to the current record production of automobiles, refrigerators and other metal consumer goods.

Steel was slow to expand and supply actually never has caught up with demand since 1941. Production was 66.9 million short tons in 1940 and by 1949 had inched up only to 78 million short tons, a gain of only 18%, while aluminum, for instance, was being increased 192%. Fortunately, new steel facilities have come in recently, so that the 1950 output, as indicated by the first six months' rate,

may total 99.4 million short tons. Nevertheless, there will certainly not be enough steel for both warfront and homefront.

The size of the Government's tin stockpile is a top strategic secret, but it is no secret that world production has not recovered from the last war and the Far Eastern sources are again threatened by enemy advance. It is known also that visible industrial stocks of the metal have been built only to about half the level of 1940.

Offsetting this dark picture, so far as can suppliers are concerned, is the fact that we learned in the last war how to make tin on tinplate go much, much farther-and we still are using the extensive electrolytic-plating facilities which make these economies possible. Because of this we have the apparent contradiction of tinplate production increasing 37% between 1940 and 1949, while tin itself was cut in half or more. In 1940 we consumed 2,191,000 tons of tinplate; with the coming of war we dropped drastically to 1,684,000 tons, including heavy military requirements-but by 1949, thanks to thinner-coating practices, we were up to 3,277,000 tons of tinplate.

In the last war military procurement agencies insisted that they had to have hot-dipped tinplate for overseas with, in most cases, even heavier coatings than was the current commercial hot-dip practice. At present they seem convinced by the performance of the electrolytic coatings and may settle for that. The decision on this point will have an important bearing on the supply of both tin and tinplate for civilian use.

Military specifications for collapsible tubes probably will turn mainly to aluminum. The recent development in plastic and foil combinations for tubes have been considered, but ap-

TABLE I-ESTIMATED PRODUCTION SELECTED BASIC RAW MATERIALS. 1940 AND 1949°

Type	1940	1949	Per cent change	1950†
Steel (million short tons)	66.9	78.0	+ 18.1	99.4
Tinplate1 (thousand short tons)	2,738	3,750	+ 37.0	4,500
Tin2 (thousand long tons)	70.5	35.7	- 49.0	
Aluminum <sup>8</sup> (thousand short tons)	206.3	603.5	+192.5	625.0
Paper and paperboard (million				
short tons)	14.5	20.3	+ 40.0	22.0
Lumber (billion board feet)	28.9	31.9	+ 10.4	

Department of Commerce figures.

Projected on first six months' rate.

Includes short ternes.

Visible consumers' stocks of tin metal in inventory and in transit within this country; does not include Government stockpile.

Production of primary aluminum in the U. S.

TABLE II-COMPARISON OF PRODUCTION OF PAPER AND PAPERBOARD WITH SELECTED CONTAINERS, 1940-49 (Unit: thousands of tons)

Year	Total paperboard and paper, all grades	Index	Paper	Index	Board	Index	Corrugated and solid fibre containers	Index	Folding boxes	Index	Set-up boxes	Index
1941	17,762	123	9,362	117	8,400	130	4,279	137	1,732	124	731	119
1942	17,084	118	9,115	113	7,969	124	3,586	115	1,536	110	997	163
1943	17,035	118	8,415	105	8,620	134	4,100	132	1,662	119	829	135
1944	17,182	119	8,220	102	8,963	139	4,173	134	1,730	124	750	122
1945	17,370	120	8,457	105	8,914	138	4,150	133	1,870	134	721	118
1946	19,278	133	9,773	122	9,504	147	4,568	147	2,031	145	520	85
1947	21,114	146	9,416	117	9,187	142	4,944	159	2,257	161	595	97
1948	21,922	151	9,800	122	9,369	145	5,079	163	2,182	156	596	92
<sup>2</sup> 1949	20,267	140	9,200	115	8,953	139	4,408	142	2,055	147	601	98
21950	22,000						5,000		2.100		601	* *

<sup>2</sup> Preliminary.

<sup>3</sup> Annual rate indicated by first six months.

<sup>4</sup> Source: Census Bureau, trade associations and journals and the Office of Domestic Commerce. Compiled by General Products Division, Office of Domestic Commerce, Dept. of Commerce.

parently dropped because of the need for plastics in things more vital. Tin will be out except for those cases where vital materials cannot be contained in aluminum.

#### Aluminum

There is no clear picture on aluminum. News reports have mentioned it among the earliest scarce materials, but those close to the packaging picture see no immediate threat unless electric power supply is curtailed. In view of the increase of primary aluminum production from 206.3 thousand short tons in 1940 to a tremendous 603.5 thousand short tons in 1949and the even higher figure of 625 indicated for 1950-an optimistic view would seem in order. With the bringing in of the Kaiser aluminum plant in California a year ago, primary producers increased from 2 to 3.

The shortage of aluminum foil for packaging in the latter stages of the last war was caused primarily by the demand for huge quantities of foil ribbons to be thrown from our bombers literally to "foil" the German radar screens. With the changing strategies of warfare, it is doubtful if this device would work again.

Reynolds Metals Co., one of the two biggest primary producers, has announced a voluntary pledge to give priority to all requirements for aluminum products essential to military preparedness, requiring, the announcement says, allocation of metal to customers for civilian use.

#### Paper and boxboard

responsible Washington quarters say flatly that there should be no noticeable over-all shortage of paper and board through the first quarter of 1951, if at all. Corrugated boxboard production hit a new peak of 17,867,000,000 sq. ft. in the second quarter of this year. This was 50% above the second quarter of 1944, a peak war year, in which 11,839,000,-000 sq. ft. was produced, including military requirements,

However, the movement of rations and other supplies to Korea is going to take an unknown quantity of highgrade container board. The climatic requirements could scarcely be stiffer. Korean weather varies, according to season, from almost-tropical heat and dampness to bitter below-zero cold and snow. This would indicate a renewed demand for V-board. However, it is known that the military agencies have tested VUS-board, a postwar development for commercial use, and have found it at least as good as V-3; they are counting on considerable use of this in the new war at a sizable saving on kraft.

Consumption of paper boxes has roughly kept pace with expanding production. As shown by Table II, production of corrugated and solid fibre boxes in 1940 was at the rate of 3,114,000 tons; in 1949 at 4,408,-(This article continued on page 193)

BIGGER RATION C-4 is used behind the front lines. Except for new polystyrene spoon, it is essentially the same as C Ration of last war.



## Waxed-paper imprinter

A LONG-STANDING MARKING PROBLEM IS SOLVED WITH DEVICE

THAT HOT STAMPS DATE AND PRICE FROM A TRANSFER RIBBON



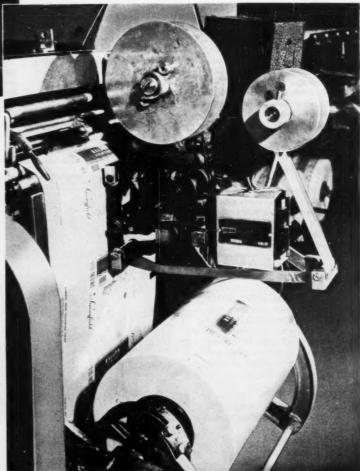
Waxed paper has the peculiarity that it does not take kindly to imprinting or marking, as in code dating and price marking. Resistant as it is to almost any kind of penetration, the waxed surface sloughs off ordinary stamping ink and marking crayon with equal facility. Stickers will not stick.

Today, at the big Jersey City, N. J., warehouse of the Great Atlantic & Pacific Tea Co., nine conventional wrapping machines are turning out 160,000 waxed-paper-wrapped packages of butter a day, each wrapper printed with a code date and retail price, legibly and indelibly—thanks to a newly developed attachment which imprints the information automatically by a process like hot roll leaf stamping, using a specially coated and pigmented tape that operates like a typewriter ribbon.

Developed by a leading supplier of wrapping and heat-sealing machinery, the code-dating attachment promises

BUTTER OPERATION of the A & P plant at Jersey City, N. J., is straight line, from printmaking and wrapping machine in background through final wrap in waxed paper that is marked with date and price. The new imprinter is attached to side of waxed-paper machine.

CLOSE-UP of the imprinter shows the specially coated cellophane tape that feeds from small reel to the large one, indexing after each stamp by heated, interchangeable die as the ribbon passes over the waxed-paper web. Action and positioning are controlled by the same electric eye as the web is stopped for cutoff.



to have wide application to waxed packages, both wraps and cartons, such as are used throughout the dairy, frozen-food and meat-product fields.

Heat, pressure and the special transferable, non-toxic coating on the marking tape are the secrets of the process. The compact attachment, which can be used on any standard intermittent-feed wrapping machine, uses heated numbering dies and a 700-ft. roll of marking tape, which is so inexpensive that it can be used once—covering approximately a day's run for a single machine at the A & P plant—and then discarded.

The marking device is attached at the side of the wrapping machine between the roll of waxed paper and the draw rollers which carry the web into the machine. The imprint is made against the plate over which the web travels for electric-eve scanning, with a special resilient pad, made of tarboard, mounted on the plate under the web. The electric eye which stops the web momentarily for cut-off also actuates the imprinting mechanism. During the split second that the web is stopped, the heated die head comes forward and stamps the desired numerals, exactly in position.

On the A & P wraps, the retail price at which the butter is to be sold is stamped in figures nearly a quarter of an inch high precisely in the center of a small "price" box, on the panel which will form one side of the finished package. Just above and at right angles to this, in slightly smaller type, code figures indicating the date on which this butter is to be placed on sale in the retail store are stamped. For example, in the code "6 A 5", the "6" stands for June, the "A" for 1950 and the "5" indicates the fifth day of the month.

An electrical element in the imprinting die keeps the type at approximately 250 deg. F. The marking ribbon is a cellophane tape coated with wax, lacquers and earth pigments. At 250 deg., when touched by the heated type, pressing momentarily against the waxed paper, the ribbon coating is released and transferred cleanly to the paper. The ribbon indexes automatically after each imprint, exactly like a typewriter ribbon, and is rewound on another larger spool, so that a fresh ribbon surface is presented for each imprint.

The heat at the moment of imprint

also affects the wax coating on the paper, causing it to soften and absorb the pigment right down to the paper. Apparently the wax continues to flow slightly and covers the imprinted numerals, so that on cooling the number is indelibly stamped on the wrap. The mark is not affected later by heat or rubbing, it is said. There is no smearing at the time of printing or afterward.

The chase holding the imprint type is removable from the printing head by loosening a couple of cam locks. The number dies can be completely changed in two minutes, it is said.

An important advantage to the A & P in the new marking system is the close and positive control that it gives over mark-up. The wholesale price of butter frequently changes from day to day. Previously each store had to mark the price according to a daily list. This system was time consuming and subject to error. Now each package is permanently marked at the plant with the price at which it is to be sold in relation to the price paid for that particular lot of butter at wholesale.

The code-dating mark is, of course, merely to assure a "first in, first out" order of selling.

Coincident with the new marking

installation, the A & P has revised the packaging of its Sunnyfield brand butter. Previously, a parchment overwrap was used on the solid 1-lb. print and a carton for the pound package containing four 1/4-lb. prints. Now the quarter prints are individually wrapped in printed parchment and the four quarters then wrapped in flat style and heat sealed in 48-lb. waxed paper, dispensing with the carton. The solid 1-lb. is similarly wrapped in both parchment and waxed paper.

Both outer wraps are colorfully printed in Sunnyfield green and red, and the imprinted marks are in deep

The same wrapping machines, with a speed of 60 packages per minute, are used for the two types of packages. After wrapping, the butter is held in a cold room for hardening for from five to 24 hours before being delivered to the retail stores.

CREDITS: Imprinting attachment developed and marketed by Wrap-Ade Machine Co., Inc., Belleville, N. J. Marking tape, Ralph W. Grauert Co., New York. Globe-Knapp wrapping machine, The Globe Co., Chicago. Parchment and waxed papers, Paterson Parchment Paper Co., Bristol, Pa. Morpac print maker and wrapper, Lynch Corp., Toledo, Ohio.



NEW PACKAGES, showing price stamped in box and also code mark "6 A 5" or "6 5" meaning June 5, 1950. Dark blue numerals are indelibly stamped in waxed wrapper; are not affected by later heat or pressure.

### Packaging's Hall of Fame



# FLAKES

A famous blue folding box bearing three big white block letters spelling "Lux"— the short, easy-to-pronounce Latin word meaning "light" that has become practically a household synonym for fine soap flakes—is celebrating its 50th anniversary this

year. It is known around the globe to the hundreds of millions who have made it the world's No. 1 seller.

In its half century of existence this simple product—first in its field—has witnessed a revolution in the laundering and dish-washing habits of the world. It has pioneered a vast new industry in soap-flake manufacturing now running into hundreds of millions of dollars annually. The package was one of the most important factors in making this possible.

The simple package format-far ahead of its competition when first important modifications were made between 1915 and 1920-has been a pacemaker in poster-type package-design technique that has not only set the pattern in the soap industry, but has been in some degree followed by every modern package planned for sale in the self-service grocery store. None of today's most experienced designers has been able to effect radical improvement, so simple and so forceful is the basic design treatment of the Lux package.

For these, if for no other reasons, Lux deserves a conspicuous place in Packaging's Hall of Fame. But beyond that and in spite of the countless soap flakes and the detergents now on the market, Lux maintains its place among the leaders of the finefabric soap-flake business.

This year, as Lux celebrates its 50th anniversary, Lever Brothers Co. is erecting what might be considered a monument to the Lux carton—a 22-story new Lever office building on New York's Park Ave. in a modern rectangular form.

#### Lux in England

The first packages of Lux were introduced by Lever Bros. in England in 1900. Unlike many products of that era, Lux was never sold in bulk, but was put up from the very beginning in packages not so different from the present ones.

William Hesketh Lever, later Viscount Leverhulme of the Western Isles and the son of a well-to-do Lan-

SYMBOLIC of the package that largely helped to build it is the shape of the Lever Bros. Bldg. now rising on New York's Park Avenue.



# NOMINATED FOR PACKAGING'S HALL OF FAME BECAUSE

- The ides of flaked canp, consenlently packaged, revolutionized an industry and lightened homehold drudgery around the world.
- Its meaningful three-letter trade name and poster-style yackage format have become today's ideals.
- Its English originates gave A seriones a lesson in high-powers a leaftishing and promotional support for a packaged product.
- At its 50th hirthday, it is said a lender in one of the most blitterly competitive fields.

cashire wholesale grocer, went into the soap business with his brother in 1885. The story of the vast industrial world empire they built in fats and oils, first as Lever Bros. and then as Unilever, is well known.

Until Lever's time, soap had been sold mostly in long factory bars, cut by the grocer to suit the consumer. Lever Bros. cut their soap into what were called in England "tablets," or convenient consumer-use lengths, wrapped each separately, called them "Sunlight" and advertised as nobody had advertised before.

Within a period of two years they had made Sunlight the world's biggest-selling soap.

Flaked soap had been made before the packaging of Lux, records showing that some type of soap flake had been produced as early as 1863 by a Danish firm. Laundries and housewives in many parts of the world had also used flaked soap, some of the cracker-barrel stores in this country having sold soap flakes in bulk from barrels prior to 1900. Many housewives, too, grated their own soap. There are probably still many people today who can remember as children standing over a washtub on Sunday night cutting flakes off a bar of yellow soap with a paring knive so Mom could work up a good suds on Monday morning. A story is told that at one period Lever actually supplied customers with graters for this purpose. Soap advertisements also at the turn of the century urged women not to rub bar soap on articles made wholly or partially of wool as "rubbing mats woolen fabrics.'

It was only logical, then, that W. H. Lever would see the possibilities of mild soap in the form of flakes, conveniently packaged for the consumer merely to shake out of a box and use.



LUX TODAY is a classic of simple, powerful, poster-style package design—one of the most effective shelf-display packages ever produced. In latest redesign (1948) the red outline was eliminated from the letters and the red and white border was removed from the package panels.

The dishwashing and clotheswashing soaps (and the synthetic detergents) undoubtedly are direct outgrowths of the Lux idea. And few packaging ideas have been a greater boom to homemakers than the convenience and improved washing qualities of flaked, powdered or granulated soap, shaken from a box, ready for creating instant suds.

Two extracts from a letter show

that Lever was influenced by seeing some particularly fine soap millings and in 1899 he adapted machinery and worked out a technique for flaking to bring out the same year a packaged soap flake which he called Sunlight Flakes.

The name Sunlight, however, was used scarcely a year, for company promotional material published in 1900 described the product as "Lux—a new



1900 First British package featured a typically rococco design.



1915 First in the U. S. introduced the famous Lux block letters.



1917 Stronger lettering and less clutter typify this early box design.

preparation for flannels, woolens, the toilet and the bath." Lux was first made and packaged at Port Sunlight, Lever Bros. famous model industrial community for workers near Liverpool.

Just how the originators hit upon the happy selection of the three-letter word "Lux" is not known, although it is believed that it was suggested to W. H. Lever by W. P. Thompson, the Liverpool trademark and patent agent who in 1884 had previously given him the name Sunlight for soap.

In a letter to his advertising director in March, 1903, Lever wrote: "Our first name for Lux was, as you know, 'Sunlight Flakes,' under which name we were not very successful. I changed to 'Lux' and the first year of the change we almost trebled our trade."

For a packaged product to be sold world-wide, the name Lux was just about ideal.

Brevity of the word made it easy to display in practically any space. To anyone familiar with its Latin meaning it provided the suggestion of cleanliness. It was understandable in almost every language and had the advantage of sound association with luxury-most suitable for a quality product to be used for washing fine fabrics. Its pronunciation was also easy in almost any tongue. It was one of the first of the important three-letter coined trade names conveying a significant meaning-now the model of all trade-name thinker-uppers and the father of a long line of three-letter words in the soap field-Fab, Vel, Duz,

The Lux trademark was registered in this country in 1900, but the prod-

uct was not introduced on a large scale in the United States until 1906, the first packages being imported from England. American production was started in the Lever Bros. plant at Cambridge, Mass., the following year. For several years Lux "hid its light under a bushel" in the United States while the company plugged Lifebuoy, Welcome and Sunlight Soap in its American advertising.

When new management took over about 1913, however, it foresaw the tremendous expansion just beginning in the fine fabrics and lingerie market and the possibilities of the quick-dissolving, rich-sudsing, mild Lux Flakes as the answer to the convenient and proper washing of garments made from such fabrics. Lever Bros. started an advertising campaign which was designed to explain to the housewife the special advantages of Lux Flakes and chose the J. Walter Thompson Co. as the agent in 1915.

# Package simplification.

The real story of package fame began with this campaign. By the end of the first three years, sales had grown 10 times. Success brought competitors on the scene (Ivory Flakes in 1918; Kirkman's Chips in 1924), but Lux in its famous blue package was so securely established in the finefabrics field that its position as America's most widely known soap product for fine fabrics has never been challenged. It is in the select circle of packages with brand names that have become synonyms for the generic product. The average woman, sudsing her undies in the bathroom bowl before retiring, is apt to refer to the operation as "Luxing"-regard-



1918 Modern design begins to emerge at the end of World War I.



1922 Cleaner face and "for washing dishes" appeal is inaugurated.



1932 Sketch on the side panel adds interest, suggests product use.

less of the soap-flake brand she happens to be using.

The company claims that Lux Flakes are still the largest-selling finefabric soap product in the world-wide market and have been so since their introduction.

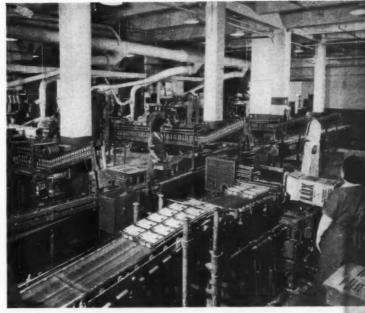
One of J. Walter Thompson's first moves in 1916, of course, was to give new life to the package by putting the name in bold, square, white letters on a dark blue background. This display contrast continues to the present time, with only subtle modifications.

So very modern in its conception was this package that it remains one of the most effective packages for shelf display ever produced.\*

No better example of subtle package change to meet every changing merchandising trend could be found than the series of Lux packages from the beginning.

The original 1900 package is reproduced here from an illustration in "The Port Sunlight Souvenir," published in 1903. Under the word Lux, which was big even at this early day, the package carries a line drawing or wood-block cut showing a harried housewife standing over a wash tub. Behind her is some kind of spritely gnome holding a light-presumably bringing her the vision to wash with Lux. The promotional copy read "dissolves quickly in hot water, producing a cleansing solution purifying and refreshing, manufactured by Lever Bros., Ltd., Port Sunlight, England." Not very much copy-but so tangled

up with the "spirit" picture and meaningless rococco decoration that it lost its effectiveness. Sides and back of See "Design's Critical Eye," Modern Packaging, Aug., 1950, p. 74.



PACKAGE PRODUCTION in a typical Lux Flakes plant, showing the cartons moving to and from the large, high-speed carton fillers in the rear and finally to the automatic casing machine shown in foreground.

the package were taken up with informative copy which was printed in small type. The background color of the Lux carton was red.

The J. Walter Thompson Co. took a broom and swept this package clean. The first American-designed package, dated 1915 in the historical sequence of photographs herewith, introduced the famous bold block letters "Lux,"

reverse white with red outline, much as they were to appear for the next 30 years. The trade name was centered up and down between panels and lettering strips that stressed qualities and uses of the product in a most modern way: "For flannels, blankets, etc."; "For silks & fine "Won't shrink woolens"; "Pure essence of soap." Although the



1939 'Gentle to hands' backed up the new advertising approach.



1940 Opening device appears at the left-hand side of the box top.



1945 Red bull's-eye first appears with a thrift message to the user.



MODERN MERCHANDISING has turned to "deals" like this molded plastic make-up chest containing six bars of Lux toilet soap. One of the first inexpensive fine-milled toilet soaps, Lux bar is the only other Lever product carrying the Lux name and has been phenomenally successful.



EARLY MERCHANDISING in England is revealed in this counter carton for six penny packets of Lux Flakes, preserved by a British housewife since 1911. The design may be buckeye by today's standards, but Lever was far ahead of his time in merchandising ideas.

all-cap Gothic typography would be frowned on today, it was basically a modern, self-selling package.

As the value of the trade name gained recognition, the package was redesigned in 1917 to make the name even bigger and to compress the incidental information into shorter and broader terms. This package also was the first to call the products simply "soap in flakes."

The next package, 1918, shows the complete break with the past—a package so simplified and modern, with carefully studied arrangement of spacing emphasized by contrasting lettering that it was to continue with only

minor changes in design up until the present time.

The more recent changes have generally been made to incorporate new advertising appeals. First, the package copy stated, "for all fine laundering and for washing dishes." Later the message was changed to "For all fine laundering—for dishes, gentle to your hands."

# Opening device

First appearance of the easy-opening device is revealed on a Lux package in use in 1939. It had a central perforated opening noted by a small arrow over the U of the word Lux on the top panel (see photograph at bottom of page 107, extreme left).

The history of this convenience feature is interesting. It was originally adopted as the result of a suggestion put into the Departmental Suggestion Bureau Box at Port Sunlight in 1930 by Tom Owen, a foreman in the carton section of the printing department, now retired. The record states: "A new cheap carton with a novel opening device was introduced. It was simple in character and did not involve any change of plant for preparing or packing the carton." In this, the principle is the same as that of many opening devices on cartons today.

The Lux opening, however, has been modified several times. In 1940 the opening device was changed to the arc type on the side panel as being more convenient for the consumer in dispensing the flakes.

During the early '40s, with the growth of self-service merchandising, the first big change since 1918 was made in the package. The attentiongetting red bull's-eye was added in 1945 with selling copy, "thrifty . . . see how much one box will do." The copy about product uses was also strengthened—"Rich safe suds, long life for washables, fast for dishes, kinder to hands." The opening device was moved to the right-hand corner and a white spot was provided on the top for price markings.

The current package—adopted in 1948—shows a further strengthening of the block letters by elimination of the boundary lines, plus new copy tying in with newer sales appeals. The bull's-eye now calls attention to the word, "Flakes," for the first time—and emphasizes the new diamond shape of the flakes . . . "these new diamonds of Lux make faster, richer suds."

## Package production

Production of the Lux package has progressed with the growth of the business. The first packaging was done by hand, with foot-press filling machines. This meant that hand operations were employed for the carton set-up with a hand gluing operation.

The engineering department of Lever Bros. had developed a type of fully automatic packaging machine by 1918 and today the famous cartons are turned out at high speed on the most modern carton set-up, filling and closing machines.

The company has conducted many studies on the problem of settling soap flakes, which leads to complaints of short fill.

All of the Lux packages are filled by weight, but also to a specified filling level. Any that do not meet these requirements are rejected. At one point a curl was introduced in the tiny diamond-shaped flakes, which appears to hold down the settling to some degree.

### Promotion

From the very beginning in England, Lux has been given strong promotion. Originated by a man who did not stop at mere notices at a time when merely to print a notice was to attract attention, Lux had the good fortune to be backed by one of the



DEMONSTRATOR CREWS were important to early acceptance of new flaked soap in America. This typical crew was photographed in Pittsburgh in 1928,



FIFTY YEARS AGO, when Lux was first introduced, the appeal was, as it is still, on easy washing of fine fabrics. This young lady, illustrated in an early Lux sales pamphlet, might have been the grandmother of the modern miss whose hands are in our cover picture.

world's most aggressive advertising policies.

Because he liked Americans and their commercial mindedness, W. H. Lever is reported to have quoted often the American jingle:

If you whisper down a well
About the goods you have to sell,
You will not make as many dollars
As the man who climbs a tree and
hollers.

The early advertising push was in women's magazines and a considerable portion was used in car-card advertising. It is impossible to give figures on the original budget, but it was so considerable that there were very few people who did not quickly become aware of the blue box with the three white letters.

As radio came on the scene, the Lux Radio Theater grew to be one of the most consistently successful programs on the air. Now 15 years old, it still has one of the top ratings. Independent sources report that Lever Bros. spent \$1,348,679 for radio time in 1949 to advertise Lux soap and flakes; \$1,008,050 in general magazines, farm papers and magazine sections, and \$1,005,216 in newspapers for the two related products. This fall will see the entry of Lux into television.

The Lux Washability Laboratory, in which hundreds of fabrics are constantly in washings with Lux Flakes, has also been an outstanding promotional factor.

As a result of tests at the laboratory and others made by Lever Bros. in cooperation with the U. S. Testing Laboratories, the company claims that today 15 times as many manufacturers of fine fabrics recommend Lux on their labels as any other soap.

This clever promotional idea-which has probably contributed more than any other to put a box of Lux in the hands of every woman who ever owned a piece of dainty lingerieoriginated about 1913 when F. W. Countway had become general manager of Lever Bros. in the United States. He foresaw the tremendous development of ready-to-wear items made of silks and the newer rayon fabrics then just appearing on the market at that time when expanding industrial economy was increasing incomes so more people could buy garments made of these fine fabrics. Lever Bros. was quick to go to the manufacturers with the Lux story of how to wash fine lingerie and delicate

The company still plugs hard at this promotion, always testing new fabrics

on the market, and its technique in achieving results is the envy of the entire soap industry. It was a real pioneer in this respect.

The company also was a pioneer in direct consumer service, for years maintaining crews of young women who went about the country instructing women how to wash articles in Lux Flakes and how to obtain the best results in washing with this fine soap product.

Lux Flakes are sold today in the same two sizes-the regular-sized carton, 5 oz., and the large size, currently having a marked weight of 12½ oz. –introduced sometime prior to 1923.

Lux today ranks high in sales volume among Lever Bros. multitude of consumer products: Good Luck Margarine, Spry, Pepsodent, Rinso, Swan Soap and many others well known to every American shopper. The story of its phenomenal success proves once again the inestimable value of a quality product in a memorable package that people all over the world can recognize.

CREDITS (current packages): Cartons, Worcester Paper Box Corp., Medford, Mass. Cartoning equipment, Pneumatic Scale Corp., Ltd., Quincy, Mass. Design consultant, Raymond Loewy Associates, New York.



AROUND THE WORLD, in any language, "Lux" means sonp flakes. These designs for England, Holland and Greece are similar except for differences in language. Lux Flakes were introduced in England 50 years ago.

Metallic ink is helping prove the contention that colorful corrugated boxes help sell merchandise. Currently being used in several tints, the ink is reported to add sparkling sales appeal to cartons and their printed advertising messages.

One of the pioneer users of metallic ink was the Illinois Bronze Powder Co. of Chicago. The firm's aluminum paint was not selling as well as it should have been, so steps had to be taken to stimulate consumer buying.

To accomplish this, it was decided to design a shipping-display carton featuring an aluminum background. The aluminum tint, it was felt, would facilitate quick consumer recognition for radiator and other metallic uses of the paint and, at the same time, provide an attractive base color for descriptive copy.

Illinois Bronze's box supplier produced the desired ink by combining aluminum powders with low-viscosity liquids. Not only did the new ink have the appearance of aluminum, but it could be economically printed on the box company's high-speed aniline-rotogravure press. The press used was made to specification. Its aniline section laid the aluminum tint and its rotogravure section added an overall pattern in blue ink.

This dual-purpose container received immediate dealer approval and sales increased from the outset.

So successful was this first carton that it served as a pattern for the carton which Illinois Bronze is currently using to ship and display its line of pressurized paint—Spray-O-Namel.

The Spray-O-Namel carton features a metallic green over-all tint with deep green overprint. It was designed to encourage display of the paint in housewares, hardware and paint stores.

"We realized that in entering the housewares market with this new product we needed retail display," says Robert S. Rothschild, Illinois Bronze's assistant secretary. "Since Spray-O-Namel was costly to develop, we had to watch all expenses. We believe our present shipping and display carton gives us an effective display economically."

Equally convinced of the value of metallic ink as a color base for corrugated cartons is the Admiral Corp., which now ships television sets in corrugated boxes with an all-gold background and dark blue overprinting.

The new box was especially designed to promote the Admiral name

# Metallics for



BOTH SIDES of Quaker curtain-stretcher box work to sell product. As with many aluminum products, background of aluminum ink helps identify product. Copy is sharply set off with overprinted red and blue inks.

as a symbol of quality. The metallic gold and deep blue match the U. S. Navy's traditional colors and are deemed particularly appropriate for a product carrying the high rank of "Admiral." Two sides of the box are devoted to television messages. The other two sides promote Admiral's other products—refrigerators, radio-phonographs and electric ranges.

Wherever it goes, this corrugated carton serves as a silent salesman—a traveling billboard—for Admiral's merchandise. This was demonstrated recently when a television dealer displayed the carton in his store's window. He set it on a turntable. As the carton revolved, its metallic gold finish reflected the sun's rays and attracted a crowd of passers-by.

Seymour Mintz, Admiral's advertising director, believes that the box is of exceptionally high value in the nation-wide campaign to keep the name of Admiral before the buying public.

The Quaker Stretcher Co. of Chi-

# corrugated

# PACKAGERS ARE FINDING NEW DISPLAY EFFECTIVENESS

# IN SHIPPING CARTONS PRINTED WITH METALLIC INKS

cago is another user of metallic-printed corrugated cartons. The company manufactures many types of curtain stretchers. Their new all-color box is said to be the first in the curtain trade.

The Quaker box has a metallic-tick aluminum background on which red and blue inks are overprinted to highlight advertising messages. The aluminum background, of course, quickly identifies the aluminum curtain stretchers. Commenting about the carton, a housewares buyer of Mandel Brothers department store in Chicago said: "It's outstanding. It's the first curtain-stretcher box in the trade that we have found appealing enough to use in floor display."

Similar reports have been received about metallic-ink boxes now being used by the Arrow Bag Co., Denver; Leef Bros., Minneapolis; and the Wessel Co., Chicago.

According to research consultants of one of the firms which played a leading role in developing metallic ink, the ink has many desirable characteristics. An inorganic material, it is exceptionally durable. Used as an over-all tint on a corrugated box, metallic ink gives a coating that resists fading and moisture. Its strong bond to the surface protects against abrasion, chipping and pealing.

From a sales viewpoint, a box which has a base coat of metallic ink provides exceptional readability, compared with the tan of ordinary corrugated.

Consultants for one of the several suppliers of this type of carton recently made a spot check on the average life of a metallic-printed carton. They report that the average shipping container goes through 28 different handlings and is viewed by 170 consumers during its lifetime. This, they conclude, makes all-color corrugated boxes one of the most effective and least expensive ways of advertising packaged products.

Chedits: All cartons illustrated supplied by Stone Container Corp., Chicago; Admiral carton also supplied by Lanzit Corrugated Box Co., Chicago. Anilinerotogravure press, Hudson-Sharp Machine Co., Green Bay, Wis.



GOLD AND BLUE, the Navy colors, give smart psychological support to the "Admiral" name and enhance the quality impression. All-gold background has blue overprinting. Box sides promote other Admiral products.

ALUMINUM-PRINTED combination shipping and display carton provides the perfect setting for Illbronze aluminum paint, product of Illinois Bronze Powder Co., Chicago. It is printed on a combination press that economically lays aluminum background by aniline and adds blue imprint by rotogravure. Background of metallic green, similarly handled, was adopted for same firm's Spray-O-Namel.





# DESIGN

# To intrigue young celebrity collectors



In a completely new packaging departure for the famous line of Royal Puddings and Royal Gelatin Desserts, Standard Brands, Inc., is now devoting the entire back of each package to an autographed picture and short history of one of dozens of baseball and movie celebrities. The new promotion is designed to encourage boys and girls to collect their own private picture series. An incentive to would-be collectors is a premium offer revealed in copy on the package back that fans who start the Royal Star picture collection can obtain a plastic, spiral-bound album with a colorful cover, large enough to hold 16 photographs, for 15 cents and three Royal Dessert package fronts. Each photograph is complete with little-known facts about the Royal Stars.

CREDITS: Cartons for Royal Puddings, William W. Fitzhugh, Inc., Brooklyn. Cartons for Royal Gelatin Desserts, Guilford Folding Box Co., Baltimore, Md., and Swayze Folding Box Co., Inc., Canton, Pa.

# Label aristocracy for high-quality wines



A dignified label, entirely reflective of the premiumpriced quality of its new "Ceremony" line of varietalselection and puncheon-stock wines, has been adopted by the Wine Growers Guild, Lodi, Calif. These wines the cream of the winery output—are produced and bottled for the most discriminating premium-wine buyers and connoisseurs. The lithographed label is printed on a rich, laid stock in a conservative color combination of red and black. The illustration is in a style reflective of steel engraving. The bottle is of green glass; cork and neck are covered with crimson, gold or white foil, depending upon the variety of wine contained.

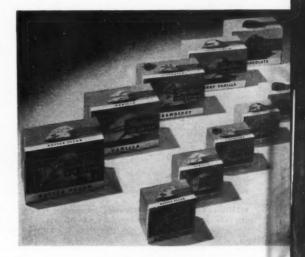
CREDITS: Design, Guy Street, San Francisco. Labels, Schmidt Lithograph Co., San Francisco. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Foil neck bands, I. F. Schnier Co., San Francisco.

# HISTORIES

# Ice-cream cartons with mouth-watering appeal

The eye appeal of full-color illustrations with quick and positive brand and flavor identification feature the new standardized line of packages for use by all operating companies of National Dairy Products Corp. selling Sealtest ice cream. Developed after months of research into dealer facilities and consumer preferences, these newly designed Sealtest cartons are color-keyed to flavor. The familiar Sealtest trademark is carried on all six sides of the carton, together with flavor designation in type. Tempting color pictures appear on the four large sides. Both pint and half-gallon sizes fit well in merchandising display cabinets and home refrigerators. The new package is the basis of an advertising and promotion campaign to increase the product's potential as a profit builder.

CREDITS: Design, Raymond Loewy Associates, New York. Cartons, Marathon Corp., Menasha, Wis.; Bloomer Bros., Newark, N. Y.; Sutherland Paper Co., Kalamazoo, Mich.; Container Corp. of America, Chicago.

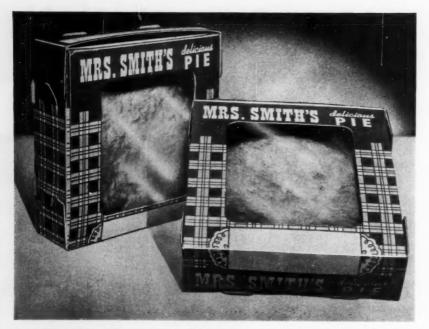


# Six-sided window box spurs yarn sales

Prominent counter space is likely to be given to this full-color-printed, acetate-laminated, hexagonal window box for nylon yarn for knitting argyle socks, adopted by Emile Bernat & Sons Co., Jamaica Plains, Mass., manufacturer of knitting yarns. The yarn was previously rolled in a knitting-direction sheet and cellophane overwrapped. By using a long hexagonal box, it was possible for the company to retain the same yarn-winding procedure used with the old package. The six sides of the box assure ample space for display copy and visibility of contents regardless of the manner in which the box is placed on the retail sales counter. Color photographs on the sides identify the socks that may be made with the yarn.

CREDITS: Design, Michael Saphier Associates, New York. Box, Brooks & Porter, Inc., New York. Acetate lamination (Lamcote), Arvey Corp., New York.





VISIBILITY PACKAGE is reported responsible for sales increases of 63%. Tab-lock construction allows quick set-up without the use of glue. The acetate window has good vapor transmission and, with vents in bottom of carton, is credited with doubling the shelf life of the pastry.

# Pie in the window

THE LOCK-TAB TRAY IS ADAPTED TO A SIMPLE WINDOW CARTON,

WITH SOME SPECTACULAR RESULTS ON PIE-BAKERS' SALES

If Simple Simon today passed through Pottstown, Pa., on his way to the fair, he'd meet a pieman whose production is reckoned not in pennies but in millions.

Down at Pottstown, in the Pennsylvania Dutch country, the Mrs. Smith's Pie Co. is turning out 6,980 pies per hour, packing them in acetate-windowed folding cartons on a semi-automatic packaging line with the aid of seven girls and distributing them throughout Eastern Pennsylvania—a long way from the oven door. One of the reasons why this can be done successfully is the new rigid, "breathing" package which has, according to the company, doubled the shelf life of the pastry and added

sales-stimulating eye appeal as well.

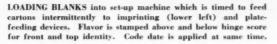
Pie sales have risen 63%, labor costs have been cut 50%, breakage has been reduced from 0.0053 to 0.0034% and "stale" returns have declined to less than 1%—a sizable improvement over the average of 5'/s% for the formerly used bags which had to be picked up after two days on the dealer's shelves. The happy pie makers readily attribute these impressive gains to the new package.

The hinged-lid, tuck-flap carton, made of 0.020 BMLN (bleached manila lined news), with its window of sparkling acetate film, is a further development of the now-familiar lock-tab tray, which has the advantage of being rapidly set up from flat blanks

without glue by special machinery supplied through the carton maker. The lock-tab construction of the box sides, in addition to eliminating the need for adhesives, has the special advantage in this case of providing helpful ventilation for the pies, which mold very quickly if tightly sealed.

The use of acetate film for the window also is instrumental in preserving the pies, since it is relatively permeable to water vapor. The pies are packed hot. With other window materials, moisture tends to collect and condense on the inside of the window, impairing visibility and increasing humidity within the package. The acetate film permits moisture to pass off and thus remains clear and







LOADING PIES is a hand operation as open cartons, with paper plates in place, pass on conveyor belt. Rated speed of line, on intermittent feed, is 65 cartons per minute, requiring only two packers.

unwrinkled, it is claimed, adding to the quality appearance of the pies.

The Mrs. Smith's Pie Co. is only one of a dozen or more pie bakers who have turned to this package, specially developed for their purpose. Others include: Blue Bird Baking Co., Dayton, Ohio, and Louisville, Ky.; Home Made Pie Co., Indianapolis, Ind.; Cleveland Pie Co., Cleveland, Ohio; Table Talk Pastry Co., Worcester, Mass.; Capital Bakers, Inc., Harrisburg, Pa.; Wagner Baking Corp., Brooklyn, N. Y.; Carolina Foods, Inc., Charlotte, N. C.; Modern Bakery, Pineville, Ky.; Fasano Pie Co., Chicago, Ill.; and Wiseman Pie Co., Rome, Ga.

The new window packages cost more than previously used packaging materials. At the Smith company, for example, the older bag containers cost \$4.48 per 1,000. For the same quantity of the new cartons, the cost is \$6.87, but the additional cost, the company says, is far outweighed by the savings in labor, reduction of returns and increased sales due to a fresher product.

The cartons are supplied to the customer in the form of flat blanks which are already printed, cut and windowed. The blanks are placed in the 1,000-capacity magazine of a carton set-up machine which is run by the same motor in time with the piepackaging line. The rest of the line consists of the printer, paper-plate feeder, automatic carton-closing device and the connecting conveyor belt and was developed by the carton supplier. Top speed, using intermittent closing, is said to be 65 cartons per minute

and Mrs. Smith's company reports operational rates of 61 to 63 cartons per minute. This speed is said to be most efficient, from the standpoint of labor economy, in conjunction with these printing and plate-feeding machines. Greater speeds could be obtained by using continuous-motion closing, but this in turn would require additional employees to handle the loading, take-away and inspection.

After the carton is set up, a printing device applies the proper pie flavor and a date code to facilitate checking on distribution. The device consists of a back-up arm which comes behind the printing surface and a printing block which has a quickchange flavor plate and the separate code plate. For users who prefer distinctive colors for each day as a coding method, the machine is easily adapted for roller and ink changes. The flavor plate prints in duplicate, one above the hinge score on the lid and the other below. This provides identification both front and top.

At the next operational stage, a paper pie plate is automatically fed into the empty carton. The cartons are then conveyed to the packers who drop in the pies two at a time. The loaded boxes are closed automatically and finally packed by hand into the shipping units, 12 to a folding paper-board tray.

Prior to the installation of the set up and accompanying packaging machinery and the adoption of the carton package, Mrs. Smith's Pie Co. packed 7,380 pies per hour in bag containers using 16 girls. Production under the new system is slightly less-amounting to 6,980 pies per hour but the number of employees has been reduced to seven, with savings in labor costs up to 50%.

CREDITS: Acetate film, Celanese Corp. of America, New York. Carton and special packaging machinery developed and supplied by Sutherland Paper Co., Kalamazoo, Mich. Kliklok set-up machine leased by Sutherland Paper Co. from Kliklok Corp., Wilton, Conn.

FOR DELIVERY, cartons are packed 12 to a folding tray. Photo shows complete line from carton set-up to imprinter, plate loading, pie loading and (center) to special lide-closing machine.



# They're all getting into the act!

# - and sharing one of the biggest successes in recent packaging history!

In these pages you see a list of the converters and machinery manufacturers now profiting by the increasing demand for Pliofilm. It's a list that's constantly growing as acceptance of this transparent packaging film becomes more widespread.

If your name isn't already in this lineup, get all the facts now on this qualityprotecting, sales-building material that affords superior moisture proof protection. Write: Goodyear, Pliofilm Dept., Akron 16, Ohio,

# CONVERTERS

The following converters are equipped to perform the services listed below:

#### PRINTERS, LAMINATORS AND FABRICATORS

Dobeckmun Company, The Box 6417, Cleveland, Ohio

Milprint, Inc. Milwaukee, Wis.

T. M. Royal & Company 5800 North Seventh St. Philadelphia, Pa.

Shellmar Products Corp. Mt. Vernon, Ohio

Standard Cap & Seal Corp. 629 Grove St Jersey City, N. J.

Traver Corporation 358-368 West Ontario St. Chicago, III.

U. S. Envelope Company **Kellogg Container Division** 21 Cypress St. Springfield, Mass.

#### PRINTERS AND LAMINATORS

Nashua Gummed & Coated Paper Company Nashua, New Hampshire

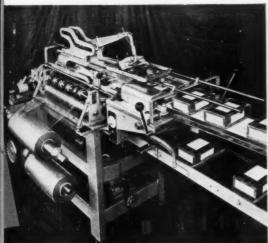
### FABRICATORS

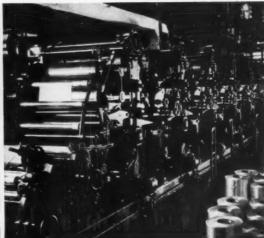
American Bag & Paper Corp. Water & South Sts. Philadelphia, Pa.

Central States Paper & Bag Company, Inc. 5221 Natural Bridge St. Louis, Mo.

PACKAGERS!

If you're not yet using Pliofilm, get in touch with any of the suppliers listed here.





Comet Envelope & Paper Company Pen-Mac-Nye Company 5 E. 17 St. New York, N. Y.

Crystal Tube Corp 538 South Wells St. Chicago, III.

Denton Corporation, The 2124 Livingston St. Oakland, Cal.

Kennedy Car Liners & Bag Co., Inc. Shelbyville, Indiana

111 West Center St. Akron, Ohio

Sodorff & Biehl 6569 Fourth Avenue Seattle, Wash.

Union Bag & Paper Corp. Woolworth Bidg. New York, N. Y.

#### FABRICATORS AND LAMINATORS

Western Products, Inc. Newark, Ohio

### LAMINATORS

Floyd A. Holes Company 100 Northfield Rd. Bedford, Ohio

Irvington Varnish & Insulator Co. Irvington, N. J.

Standard Cap & Seal Corp. General Felt Division 68 35th Street Brooklyn, N. Y.

# MACHINERY MANUFACTURERS

The following are prepared to supply original equipment, or to convert your present equipment to Pliofilm packaging:

#### OVERWRAP MACHINES

Allbright-Nell Co. 5223 Southwestern Blvd. Chicago 9, III.

Hayssen Mfg. Company Sheyboygan, Wis.

Lynch Corporation Package-Machinery Division Toledo 1, Ohio

Oliver Machinery Company Grand Rapids 2, Michigan

Package Machinery Co. East Longmeadow, Mass.

Transparent-Wrap Machine Corp. Henry St. & Route 17 Hasbrouck Heights, N. J.

### BAGGING MACHINES

P. H. Diffenbaugh Co. 2903 Hall St. Dallas, Texas

Modern Containers, Inc. 3220 E. Olympic Blvd. Las Angeles, Calif.

Simplex Packaging Machinery, Inc. Stokes & Smith Co. 615 23rd Avenue

Roto Bag Machine Corp. 310 East 22nd Street New York, N. Y.

Shumann Equipment Co. 1200 E. Carson St. Pittsburgh, Pa.

4900 Summerdale Ave. Philadelphia 24, Pa.

Good things are better in

against air, moisture, liquids 3-way protection Pliofilm, a rubber hydrochloride --T. M. The Goodyear Tire & Rubber Company



RIDE RECORDER rigidly attached in the package records on a chart the severity and the duration of shocks received during transit.



STANDARD SHOCK TEST for packages heavier in weight than 100 lbs, is to load the package on a car on a specified incline and to let it roll by gravity a prescribed distance into a rigid abutment.

# Safer shipment

WESTINGHOUSE'S APPLICATION OF SAFE TRANSIT PRE-TESTS HAS DROPPED

DAMAGE RATE ON ELECTRIC RANGES FROM 18% TO 0.6%

Last year about \$25 million worth of home appliances and allied metal-finished products were damaged in shipment between factory and user. This meant \$25 million worth of headaches, delays, disappointments, waste and, inevitably, a cost of appliances that is higher than necessary.

About 1930, Ralph F. Bisbee, manager of quality control in the Appliance Division of Westinghouse Electric Corp. at Mansfield, Ohio, pondered the staggering annual national loss and decided that something should be done about it. Rolling a package down a flight of stairs, dropping it to a hard floor or even making a round-trip test shipment, while helpful, did not seem to Mr. Bisbee to be a scientific approach to the problem. He began some research to find out exactly what happens to a packaged product after it leaves the company shipping department.

## Shock-recording tests

First, obviously, was to learn exactly what happens to packages in transit. To obtain this data several

test round-trip shipments were made of normally packaged products to which shock recorders were affixed. These are clock-driven devices that record on chart paper the time and severity of shocks.

Shipments of various sizes and weights of appliances were made: electric ranges, roasters, refrigerators, etc. Shipments were made by all commercial forms of transportation: rail freight, express, truck, air. In some cases the packages with their "clocks"-as the recorders are sometimes called by transportation workers who hear the relentless ticking-made their circuitous round trips unaccompanied. In others an observer went with the shipment to gather information on the treatment accorded the package in addition to that provided by the vibration and shock recorders, such as the time and kind of physical handling accorded the shipment when moved from one vehicle to another.

The findings were surprising. The shocks these packaged products received far exceeded what transportation people believed normal. In almost every case the package was subjected at some point in transit to shocks of Zone 5 magnitude (above 8g). Sometimes these occurred in rail shipments when the freight car was bumped hard, but usually the severest shocks were registered as the package was being handled, as to and from a truck or when unloaded from a plane.

For example, shock-recorder tests showed that when a packaged product weighing 300 lbs. is dropped on one end no more than 10 in.—a common occurrence in unloading from a car, truck or hand truck—the shocks are equivalent to those received in a freight car traveling at 11 m.p.h. at impact. And the railroads consider that any impact above 6 m.p.h. is bad handling.

The data accumulated with these "ride" recorders resulted in the creation of two standard shock tests. For packages of between 100 and 1,000 lbs. an incline-plane shock stand is used. The packaged product on a car rides down this incline a prescribed distance and smacks into an abutment.

The relationship of the shocks thus received to those actually incurred in normal transit is known. The second shock test, for lighter packages, is the simple one of dropping them from a bottom-opening platform a prescribed height above a solid floor.

So much for shock. Then came the war. The enormous experience gained in building all sorts of war materials, shipping them to all parts of the world and using them under war conditions taught another thing—the damaging effect of vibration. The ability of a package to withstand shock is not the whole story. If shock is preceded by prolonged vibration the package is more likely to be damaged. Parts are loosened or weakened by vibration, thus allowing a blow to cause injury. This has led, since the war, to vibration studies in all sorts of transit.

As a result, two newer tests have been devised by which the shippability of a packaged product is determined. One is vibration; the other shock. These tests are now nationally accepted standards and have resulted in the formation of a National Safe Transit Committee, participated in by shippers, transportation companies and package users. This group is working to increase acceptance of the standard preshipment test procedures, to improve packaging techniques and to reduce hazards in transit.

### The Westinghouse method

At Westinghouse the lessons of Mr. Bisbee's research are applied in several ways. A new appliance at the time of its original design—even while in the planning stage—is examined from the standpoint of shippability. When prototypes of the new appliance are available, the packaging experts go to work. The appliance and its package are studied as a unit from all angles. Sometimes shippability is improved by changing or strengthening the container; sometimes by altering the product itself.

In the case of one electric-range design, certain braces costing \$1 were removed from the range itself while the container was strengthened at a cost of 50 cents. Thus there was a net saving of 50 cents at the same time that damage losses on this range were significantly reduced.

In the case of a new design of the automatic washing machine the preshipment tests indicated that a high percentage would be received at their destination with the motor out of position far enough so that they would be inoperative. A re-examination of the design showed that this was due to a mounting-bolt construction that would not always hold the motor in place after vibration and handling shocks. This was changed and subsequent field reports indicated negligible shipping damage resulted from this cause.

A similar situation developed with a new design of a rigid-mount automatic washing machine. Shipping difficulty was predicted by the preshipment tests because of a structural weakness due to welding and support bolts. After a change was made, large-scale shipment began with no significant reports of damage in transit.

Such episodes have been numerous. The object always is to secure a product and its container at the least weight, least package cost and with the least prospect of damage in shipment.

# The results

The results! The worst product from a shipment standpoint in the appliance field is one that includes both porcelain and glass. At Westinghouse this product is the electric cooking range.

In 1930 the ranges damaged to various degrees in shipment ran to 18%. After the lessons of the shock-test data were placed in practice, the shipping damage dropped to 1%. That was in 1941. This represented a whopping big improvement that should satisfy anyone. But not Mr. Bisbee and his crew. Since the war, and with the results of both the vibration and shock tests, Westinghouse range damage due to shipping causes is down to 0.6%.

The national average for some manufacturers who are not yet participating in this program still runs around 12%. By applying the Safe Transit Committee tests to Westinghouse electric ranges a direct saving of almost \$21,000 was effected—in addition to the reduction in inconveniences and improvement in customer good will.

In short, a scientific approach is being taken to reduce the annual toll of damage to products in shipment a movement destined to benefit everyone from designer to eventual user.

CREDIT: Vibration tester, L. A. B. Corp., Summit, N. J.



SHAKE TABLE gives product a vibration test known to be correlated in frequency and amplitude with those experienced under normal transit conditions.



LABEL CERTIFIES that this package has had the standard preshipment shock and vibration tests prescribed by National Safe Transit Committee. Should damage occur, it would be evidence of excessive rough treatment being encountered by the package somewhere en route.



Hagyard & Hagyard, makers of veterinary preparations since 1875, are now nationally distributing their products for the treatment of horse ailments in new containers, uniform for the 27 different formulas. The realistic label design photographically pictures grazing horses, with the trade name prominent in the center. Both amber and flint glass is used. Bottles (Shelfline) and plastic closure (Lustreseal), Owens-Illinois Glass Co., Toledo. Labels, Samuels Products, Inc., Cincinnati.

Four-leaf clover designs molded on the shoulder and base give distinction to this private-mold, decanter-type, quart-sized bottle for Lucky Leaf brand vinegar packed by Knouse Foods Cooperative, Inc. The decanter has re-use value as a water carafe, flower vase or lamp base. Bottle and closure, Armstrong Cork Co., Lancaster, Pa. Label, Stecher-Traung Lithograph Corp., Rochester, N. Y., and Inland Lithograph Co., Chicago.

A lamination of printed foil, paper and tissue used as the wrap for Sunny Tennessee Brand Frozen Strawberries, product of Southern Freezing & Preserving Co., is said to provide a high degree of protection and stability. The "strike-through" scaling characteristic of the package is accomplished by a thin layer of wax between the parchment and the tissue. The heat-scaling mechanism customarily used for frozen-food packaging causes the wax to "strike through" the tissue and completely scal

the package. Full-color reproduction is obtained by a special printing process featuring a photographic vignette of the berries and a drawing of a field of berries. Package, Shellmar Products Corp., Mt. Vernon, Ohio, using their Colodense printing process. Foll, Aluminum Co. of America, Pittsburgh, and Cochran Foil Co., Louisville, Ky.

This velvet-lined styrene plastic display box for the Curvex watch line of The Gruen Watch Co. dramatizes the wrist-curved feature of the watch itself. Special construction makes the watch-holder pop up to correct eye level when the box is opened. Plastic container, Braun-Crystal Mfg. Co., Inc., Middle Village, Long Island, N. Y., using Monsanto and Dow styrene.

Since the introduction of these newly designed labels for canned goods packed by Dennison's Foods, a noticeable increase in sales has been reported by retail grocers. The new full-color-printed label is modern in composition and has both shelf and appetite appeal. Back of the label is used to promote other products in the line, with the legend, "Next Discover Dennison's"—followed by a description of another Dennison product. Labels, Lehmann Printing & Lithographing Co., San Francisco.

Pond's "Angel Face" foundation-and-powder make-up is now being marketed in a smart new plastic mirror case, complete with velour puff. For one dollar—only

11 cents more than the standard Angel Face package—the consumer gets this handy package that is ideal for carrying in handbags. The white polystyrene case carries the Pond's Dreamflower design, roll-leaf stamped in gold. It is fitted with a nylon hinge for greater durability and a special-type front hinge gives better grip. A gold-colored foil carton printed in white completes the package. Design consultant, Lester Beall, New York. Case, Norton Laboratories, Inc., Lockport, N. Y. Carton, Lord Baltimore Press, Baltimore, Md.

Helene Pessl's widely known "Little Lady" trademark for her line of children's cosmetics is now reproduced in three dimensions as the form for a private-mold polyethylene squeeze-bottle holding 8 oz. of cologne. The doll-shaped bottle is painted to look exactly like the "Little Lady" trademark used on all the company's labels. The doll has appeal as an unbreakable toy. The doll's hat may be removed and used as a charm to attach on charm bracelets, necklaces, etc. Polyethylene bottle, Elmer E. Mills Corp., Chicago.

An example of unusual multicolor printing on polyethylene is shown in the illustration of this bag for Sunblest Seeds. The bright, eye-catching colors create a visibility package that is designed to win customer preference over cloth or paper bags generally used for seed packaging. Bags are separately tagged with identifying cards, permitting use of the same design for the entire line of seeds. Bags, Milprint, Inc., Milwaukee, Wis.

The bottle selected for Mrs. Schlorer's French Dressing, recently introduced by Mrs. Schlorer's, Inc., Philadelphia, is a stock mold with broad base for stability, ridged and lightly stippled. Bottle and closure, Anchor Hocking Glass Corp., Lancaster, Ohio. Label, Muirson Label Co., Inc., Meridan, Conn.

Gourielli is among the new users of the recently developed twist-tube container for its Active Ozone Shave Cream. The container, holding 3 oz. of shaving cream, is comprised of a polyethylene bag inside a paperboard cylinder. Cream is squeezed out by means of a torque mechanism at the base of the container. (See Modern Packaging, Feb., 1950, p. 86.) The cylinder is attractively decorated with an embossed paper label having raised silver lettering. Container (Rotube), General Cap & Container Corp., New York. Embossed label, Chaspee Mg. Co., Greenwich, Conn. Label paper, Hampden Glazed Paper & Card Co., Holyoke, Mass.

Bottle, label and closure combine to present an effective container for Pfeiffer's Chef Salad Dressing. The bulb neck of the bottle and the constriction



# Packaging Pageant











below the bulb tend to have a churning effect said to permit thorough mixture of the dressing. Bottle, Brockway Glass Co., Inc., Brockway, Pa. Label, Markhardt-Alexander, Buffalo, N. Y. Closure, Penn Cork & Closures, Inc., Brooklyn. "Cel-O-Seal" cellulose band, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Quick-frozen barbecued chickens are marketed by Dorset Foods, Ltd., in paperboard trays that slide into display sleeves, attractively designed with a reproduction of a barbecued chicken on a skewer. The chickens are packed and sealed in a protective polyethylene bag. "Tripl-Tite" tray, Standard Folding Trays Corp., Brooklyn. Polyethylene bags, Packaging Plastics, Inc., New York.

Recipe Foods, Inc., introduces its new Bennett's Chili Sauce with this novel "Twin-troductory" carryhome special-offer package. Its merchandising impact is evident from the high sales figures reported by the company. The key, cut from paperboard waste, secures the top flaps of the carton and keeps the bottles from sliding out even when the package is inverted. Carton, Container Corp. of America, Chicago. Jars, Owens-Illinois Glass Co., Toledo, Ohio. Closures, White Cap Co., Chicago. Labels, Philipp Lithograph Co., Milwaukee.

A miniature plastic harp creates an appropriate package setting for a perfume called Heavenly Tune. The perfume, in a plastic-capped glass vial, is slipped through the hollow top of the gold-colored plastic harp and fits into an opening at the base. It is tied with gold metallic ribbon. The sky-blue carton depicts winged angels floating on clouds. Carton, Brooks & Porter, Inc., New York. Harp, Arnold Brilhart, Ltd., Mineola, Long Island, N. Y., using Celanese acetate. Vial, Kimble Glass Div., Owens-Illinois Glass Co., Toledo.

Success of the Sherlock Baking Co. in merchandising its Mrs. Sherlock's Hollywood loaf in a foil wrapper led to the company's adoption of foil for its White Gold premium white bread. Sales figures indicated that housewives are willing to pay a premium for these eye-appealing wrapped loaves. The five-color-printed wrap with its gold background carries out the White Gold theme, complete with treasure chests and pirate scenes. Wrap, Milprint, Inc., Milwaukee, Wis., using Cochran Foil Co. foil.

# Push-button box maker

HIGH-PRODUCTION MACHINE ADOPTED BY WESTERN ELECTRIC MEETS NEED

FOR SHIPPING CARTONS MADE TO SIZE ON THE SPOT FOR SPECIAL REQUIREMENTS

In every plant handling a large volume of odd-lot shipments the shipping man's dream for years has been a machine that would, at the push of a button, turn out a tailor-made shipping carton of the right style, size and shape for the order at hand—doing away with the necessity of carrying a vast inventory of boxes of assorted sizes and the alternative evil of overpacking, wasting quantities of packing material and adding useless cube and tare to shipping costs.

The principle of such a machine was illustrated by a working model in Modern Packaging in May, 1945.\* After five years of development work, the first production model was demonstrated to visitors to the AMA Packaging Exposition in Chicago last April. Now the machine is reported successfully meeting its trial by fire in actual use in the shipping center of Western Electric's big Kearny, N. J., manufacturing plant.

A more rigid test, by a company noted for the high standards of its shipping packaging, could scarcely be imagined.

Western Electric supplies the myriad items of electrical and electronic equipment required by telephone companies throughout the country-everything from hand sets to switchboard units containing miles of wire and millions of parts. In addition to the steady run of original installment equipment, the Kearny plant supplies parts for virtually any piece of telephone equipment ever manufactured. Each day brings thousands of orders for parts; a bad storm in any part of the country will have the shipping department working overtime on emergency orders. Most of this is delicate, precision equipment that requires sturdy, shockproof packaging.

Altogether, the Kearny plant manufactures approximately 32,000 different items and uses 7,000 package designs to ship various combinations of these products. The sizes of these containers range from 2 by 2 by 4 in. up to 147 by 19<sup>1</sup>/<sub>4</sub> by 79<sup>1</sup>/<sub>4</sub> in.

• See "Cartons to Size," May, 1945, p. 110.

The machine by no means eliminates the need for certain standard sizes of boxes designed to contain specific single items or frequently used combinations of items. What it does do is provide the means for producing economically small-lot quantities of containers.

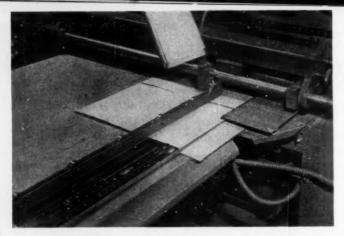
Formerly orders for these containers were increased to economical manufacturing lots and placed on carton manufacturers or, when the quantities required were too small to justify this procedure, they were made in the company's box shop on hand-operated cutting, slotting and scoring equipment. Now the operator of the new box-making machine merely pushes buttons to obtain the style and dimensions of the carton to be produced



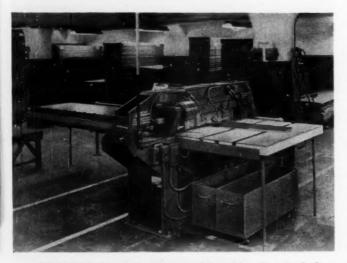
OPERATOR simply sets the slitter and scoring rolls according to the box dimensions called for. Four sliding scales set the width and length panel and the cut-off dimension. The machine is ready to run when the operator pushes the control buttons back from "adjust" to "run."

ONLY MANUAL OPERATION is the feeding of corrugated sheet stock. The board passes under and actuates a roller arm limit switch, attached to guide, allowing the feed and creasing rolls to rotate at high speed.





CUT AND SCORED BLANK emerging from machine. Conveyor takes finished blanks off, drops them on a pile or on a skid, ready to be folded and taped or stitched. Western Electric uses two hand tapers at take-off.



FULL VIEW of machine. Blanks are fed at right; dimensional adjustments are made at left. "Breaking-in" speed has been 300 to 400 boxes per hour, but the manufacturer rates machine at 600 with one operator.

from a stock sheet of corrugated and in a matter of seconds has a completely slotted and scored blank, ready to be taped, set up and packed. The machine can be adjusted to thousands of different sizes and in five minutes will deliver a run of 50 box blanks of a given size—including the time to set and reset the controls.

Although the Western Electric operators have found that they can set up the machine for any dimensional change in 55 seconds (half the time estimated by the manufacturer),

actually the machine is seldom used to produce a single carton at a time. Rather it is used to maintain a smaller and more economical inventory of a far greater range of box sizes and styles, keeping just ahead of requirements in the special-order shipping section. The run on any one box may range from 1 to 1,000. Average production so far, in the "breaking-in" stage, has been 300 to 400 boxes an hour. The manufacturer rates the machine at 600 an hour with a single operator.

Not attempting to cover their full range of shipping-case requirements, Western Electric nevertheless will use the machine for approximately 325 different box sizes, which will be increased as time goes on, thus bracketing most of their difficult-to-fit shipments. Ninety per cent of this production will be of the regular slotted carton (RSC) type, with the remaining 10% divided among a dozen other styles and 10 or more types of details of which the machine is capable. All this is obtained from nine different-sized sheets of corrugated of different grades. Estimated production of the machine is over a million cartons a year,

The production model is a far cry from the original inventor's model.

The original machine was intended to produce a single, special type of one-piece folding box in a limited size range, using sheet stock no larger than 38 by 48 in.

Now the machine will handle stock sheets 65 in, in width and of any length convenient to handle and will slot and score a blank up to 36 in. by 108 in. The stock may be any grade of board from B-flute, non-test, up to double-wall, 350-lb.-test (or 500to 600-lb.-test with a special slitting blade). The machine will turn out conventional shipping cases of almost any style. The basic container, of course, is the regular slotted carton, which may have either a taped joint or a stitch-flap joint and on which flap styles may be varied with any type of overlap up to a full lap.

But the machine also will produce such styles as the half-slotted container, the two-piece telescope box, the double-cover box, the two-piece folder, the five-panel folder, double and triple slide boxes and single- and double-lined slide boxes.

It will turn out a variety of liners and partition pieces, including one-piece, star-shaped and octagonal liners, and full-height, shoulder-height and extension partitions. It will cut blanks for regular and reverse radio pads and flanged trays. All these styles of boxes, partitions and liners have been produced successfully at Western Electric.

The production machine is electrically controlled and hydraulically operated. It performs the necessary operations of slitting, slotting, creasing and cutting off automatically.

The range of sizes produced on the Western Electric machine is from 7

by 4 by 1 in. up to 36 by 18 by 18 in., with accuracy to 1/10 in. on each dimension. Depth can go up to 33 in., but 18 in. is maximum for the width; also the sum of the width and the depth cannot exceed 36 in. For larger sizes, the machine can readily make a two-piece box.

On the original machine, box size was determined by sliding adjustments according to the outside dimensions of articles to be packed.

Now size settings are made according to the inside dimensions of the desired box and controls are moved electrically when the operator pushes buttons.

Here's how the machine works at Western Elec ric:

The operator's schedule may call for 50 boxes of a certain size and style, the inside dimensions of which are stated. At the front of the machine the operator pushes a button marked "Adjust," which is a safety control inactivating the machine during the setting. Electrical controls move the slitter and scoring rolls according to the box depth and flap width dimensions called for. Four sliding scales set the width and length panel dimensions and the cut-off dimension.

The machine is then ready to run and the operator pushes his control buttons back from "Adjust" to "Run."

The only manual operation is the feeding of the corrugated sheet stock. The operator holds the stock firmly against a stock edge guide on the infeed table. The board passes under and actuates a roller arm limit switch, attached to the edge guide, which allows the feed and creasing rolls to rotate at high speed, thereby controlling the passage of the board through the machine, both as to speed and accuracy.

When the leading edge of the board hits and depresses the first limit switch tripper on the width and length scale rails, it throws the feed rolls into low speed for the 1½-in. space just ahead of the second tripper. The depressing of this second tripper stops the feed rolls completely and also actuates the slotter knife beam for the body scores and slots, sending the knives down to cut the first two slots and score the board, which operation forms the flaps of the eventual box.

When the knives reach the bottom of the stroke, an electric timing device is actuated, retrieving the slotter knives from the board and restarting high-speed operation of feed and creasing rolls.

This operation is repeated for the second and third slots.

The last two scale trippers cause the cut-off knife to operate instead of the slotters. After the cut-off, the machine again operates at high speed, for by this time the next box blank is ready to pass into the feed rolls. However, if this additional board is not fed into the machine and under the roller arm limit switch on either the feed or take-off side, the machine will stop.

In regular use at Western Electric, the machine runs constantly on one shift. A conveyor belt takes the finished blanks off the machine and drops them on a pile or on a skid, ready to be folded and taped or stitched. Two hand tapers work at the take-off end of the Western Electric machine, taping the joints. Then the finished boxes, folded flat just as they would be if received from a box plant, are moved to the packing departments either by conveyor or on skids. Boxes intended for immediate use could be set up at this point and moved on conveyors directly to the packers.

The machine can be set up to make pre-cut blanks by setting the lower selector switch on "Cut." With that setting only the last two scale fingers and the cut-off mechanism are operative. If the selector switch is set on "Slit," none of the scale fingers operates and the full length of board can be slit to any desired width within the limits of 6 to 36 in.

For cutting and slitting, the machine will take a stock sheet up to 65 in. in width and of course more than one box frequently is obtained from a single stock sheet.

At present, boxes are rubber stamped by hand with the Western Electric name and trademark at the taping table, but future plans call for an automatic imprinting attachment at the take-off end of the machine that will take care of this detail.

In three months' use of the machine, Western Electric packaging officials report "substantial" savings in box costs, plus all of the savings incident to reduction of inventory, box-storage area, handling, etc. With the machine priced at \$12,250 (f.o.b. Buffalo), it is estimated, roughly, that anyone using over \$35,000 worth of cartons a year, in any considerable size range, can amortize the original cost in two years.

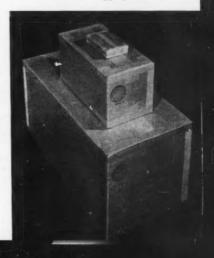
So far as direct carton costs are concerned, the machine manufactures does not claim any savings if quantities of identical cartons above 1,700 are required. That is considered the break-even point. At that quantity and above, possible savings could be reckoned only on the basis of reduced storage and inventory costs made possible by hand-to-mouth, in-plant box manufacture.

At first glance it might seem that widespread adoption of the machine by big box users would be a blow to the container manufacturers. But when the above factors are taken into consideration it will be seen that the machine has a relatively limited field.

Definitely, it is not intended for the steady, volume users of a few standard sizes of containers, which represent the great bulk of shipping-container production. Furthermore—although an over-all or random preprinted pattern on the corrugated stock is possible—it does not at present allow for the colorful, positioned printing which is increasingly considered necessary on shipping cartons that carry consumer products. However, the manufacturer of the machine expects to have available soon equipment necessary to imprint the cartons in the user's plant.

Container manufacturers are interested in the possibility of widening their business by using the machine themselves. Cost analyses indicate that the average box plant, by use of this machine, can profitably turn out (This article continued on page 185)

VARIETY OF SIZES made on machine at the Western Electric Co. plant ranges from 7 by 4 by 1 in. to 36 by 18 by 18 in. meeting requirements for 261 different sizes of shipping eartons.



# COLUMBIA STEEL COMPANY 130 LES, 557 RANGER BAGGER B

COMPARISON of old and new Columbia 100-lb. nail containers. Fibre drum weighs half as much as keg, is stronger, safer and results in cutting packaging labor in half.

A Western subsidiary of a leading steel company is pioneering the use of a new type of metal-end fibre drum for nails, replacing the wooden keg in what, it says, may be the forerunner of an industry-wide changeover, with impressive savings in weight and space.

The Columbia Steel Co., Torrance, Calif., a subsidiary of United States Steel, has installed a new patented lidding machine which can seal 45 containers a minute and has switched almost entirely to the fibre drums. The parent company and various other

steel companies engaged in nail manufacture are reported to be eyeing this Western trial with interest.

At least four factors are cited as advantages of the fibre drum over the conventional wooden keg in the nail-packaging operation: (1) it cuts packaging costs approximately 50% by reduction of hand labor; (2) it saves approximately 50% in container shipping weight; (3) it takes less warehouse space; (4) it is easier and safer to handle—doesn't break open when dropped, has no dangerous splinters or jutting nails. The drum carries

# Fibre drum

the same 100-lb, weight of nails which had formerly been packaged in the wooden keg.

The steel top of the drum being used by Columbia has corrugations around the rim, formed in the crimping process, which prevent slipping when the containers are stacked in palletizing and warehousing. The special lidding machine crimps the coldrolled steel lid securely to the fibre wall of the container. The bottom is similarly attached.

The container board is seven-ply, made from 0.016-in. Fourdrinier kraft wound on a mandrel from 17<sup>1</sup>/=in.-wide, 2,000-lb. stock rolls and laminated with cold sodium silicate adhesive.

The top and bottom edges of the side wall are rolled back about 1/4 in., making double-thickness rims for firm attachment of both the metal base and the lid.

As used by Columbia Steel, the fibre drum is 17 in. high,  $11^{1}/_{5}$  in. inside diameter and weighs 3 lbs., 6 oz. net. Three types of wooden kegs previously used for the same 100-lb. content of nails had roughly the same over-all dimensions, but weighed from  $5^{\circ}/_{4}$  lbs. each.

In a typical production-line packaging operation at Columbia, with the new set-up, the fibre drums are filled



DRUMS ARE FILLED same as the kegs—from a shaker trough, four at a time. Holding belts and funnels facilitate drum filling.



CHECK WEIGHING assures an exact 100lb. content for each drum. Note roller conveyors, designed to minimize lifting. Weigher drops the metal lid in place.



LIDDING MACHINE was specially developed. The drums move into this machine from the foreground and out on the conveyor to right background.

# AND CONVENIENCE IN NEWLY DEVELOPED, STOUT, METAL-END CONTAINER

from the usual shaker troughs and weighed on conventional scales. As each drum moves on a roller conveyor into the lidding machine it trips an air control and is automatically elevated into eight rotary crimping jaws, the steel lid having previously been dropped into place by the weight checker.

While the lid is being crimped on, the operator uses a rubber stamp to print the nail size and type on the wall of the drum. This identification of contents on the side wall is another advantage of the fibre drum. Wooden kegs carried the identification imprint only on the lid—an unhandy location from the standpoint for warehouse spotting.

Once the lid is sealed on, the elevator automatically lowers, at the same time triggering an air-powered ram which pushes the drum out of the machine onto the discharge conveyor. The entire operation takes little more than a second and the single operator is required to do no lifting or hauling of containers.

In the previous operation with wooden kegs, three men were required to handle the keg from the filling shakers and scales, nail on the lid and reinforce the staves of the kegs with wire.

The pot-bellied wooden kegs did



ELEVATOR LIFTS drum automatically into crimping jaws. While lid is being crimped, operator rubber stamps nail data on side.

not lend themselves well to palletizing. With the straight-sided fibre drums, two additional containers can be loaded on each 36-by-60-in. pallet, and yet—because each container weighs about 3 lbs. less than before—the net saving per pallet is in excess of 70 lbs.

According to Columbia officials, even the strongest wooden kegs when loaded with 100 lbs. of nails were susceptible to bursting when dropped a relatively short distance. Damage loss in shipment and warehousing was fairly high. The fibre drums, they say, having a 3,200-p.s.i. compressive dynamic load factor, can stand a much higher drop without damage. The drum may tend to become deformed and the lids bent under severe impact shock, but even though the container is beaten almost square, it has been found that the contents will reach their destination without loss.

Wooden nail kegs have not been impervious to penetration by the nails they contained. Nail points have been known to work their way through between staves and around the chimes, creating a serious handling hazard. Columbia has found, however, that the tough, seven-ply-kraft drum board is practically punctureproof.

The principal disadvantage encountered so far with the fibre drum is actually a processing problem. Coated nails customarily have been packed into wooden kegs while still wet and would dry within a week. In the sealed fibre drum, however, it has been found that nails with the same coatings require almost a month to dry. However, it is expected that this problem can be overcome by modifying the coating formula to speed up the drying rate. Recent tests with faster-drying coatings indicate that the average drying time in the drums may be cut down to a practical 11 days.

CREDITS: Drums, Pacific Steelfiber Drums, Inc., Alhambra, Calif. Fourdrinier kraft paper, Brown Paper Co., Monroe, La. Sodium silicate cold adhesive, Philadelphia Quartz Co., Philadelphia.



SAFE HANDLING is assured with smooth-walled container having no splinters, wires or projecting nails that might catch the hands.

PALLETIZING is safer and more economical. Here 27 drums are loaded on each of the pallets.









Park & Tilford's new four-bottle holder is aimed at educating consumers to the fact that there are four major types of American whiskey, each with a character of its own, and to identify the Park & Tilford brand representative of each. The paperboard display is distributed to liquor stores for either window, counter or table use. Display, Polygraphic Co. of America, New York. This full-color-lithographed giant paperboard replica of a can of Gulf Brewing Co.'s Pale Dry Grand Prize beer makes a complete self-service beer department. Nearly 3 ft. high and 18 in. in diameter, it has a shelf 8 in. below the rim holding 24 cans of beer. Two paperboard disks that hold the floor stand in position eliminate the need for customary interior supports. Display, Einson-Freeman Co., Inc., Long Island City, N. Y. The introduction of this self-demonstrating counter display for Cory electric knife sharpeners is based on the theory that once a customer has actually tried the sharpener, a sale is certain. Customers are invited to bring in dull knives. An arrow on the paperboard display points to the sharpener, stating "Try it yourself." Display, Edison Folding Carton Co., Chicago.



With the introduction of these handy three-for-25-cent packs for Habanello Commodore cigars, S. Frieder & Sons Co. selected a similarly designed counter display carton for merchandising them. Both display and individual cartons are distinctively printed in royal blue and gold bronze, and varnished. The compact display, which holds 20 units, takes up a minimum of space on cigar counters. Display and individual cartons, Lord Baltimore Press, Baltimore, Md.

# DISPLAY

This three-dimensional, 15-color-printed paperboard display for American Floor Surfacing Machine Co.'s floor finishes is built in the form of the corner of a room, reproducing a wood floor. It tells the customer that the dealer offers a complete line of supplies for treating any type of floor—wood, asphalt tile, terrasso, rubber tile, linoleum, cork or concrete. Actual cans supplied with the display—empty for light weight—may be picked up for inspection. Display, Fred DuGar Co., Cleveland.





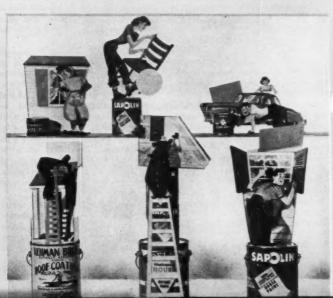


Six jars of "B-Free," the new deodorant product in stick form recently brought out by Dermetics, Inc., are effectively displayed in this paper-board display carton. Lithographed in shades of pink and green, the unit has a divided base, each section of which is die cut to hold three jars. A floral motif is combined with ribbon banners in the design. Back piece calls attention to the new stick form of the product and informs the customer that the product is for both men and women. Prominence is given in a patch on the back piece to the \$1 price of the deodorant. Design, Martial & Scull, New York. Display, United Lithographing Corp., New York. Jar, Carr-Lowrey Glass Co., Baltimore, Md. Cap, Armstrong Cork Co., Lancaster, Pa. Label, The Foxon Co., Providence, R. I.

A five-color counter display introduces Iodent Co.'s new Lykette liquid deodorant cream with sponge-rubber applicator fixed in the bottle neck (see insert). A transparent molded-polyethylene screw-cap seals the container, yet permits complete visibility of applicator. The square bottle is ACL lettered front and back. Display, Great Lakes Box Co., Cleveland. Bottle, Owens-Illinois Glass Co., Toledo. Closure, Anchor Hocking Glass Co., Lancaster, Ohio. Sponge-rubber insert, DuPont.

# GALLERY

Illustrated are six of a series of 17 full-color-lithographed paperboard cutouts distributed by the National Paint, Varnish & Lacquer Mfrs. Assn. to paint dealers. The figures, each used with actual cans of paint, depict in a light vein some familiar phase of home painting or repair by the householder. They have particular dealer appeal because they may be used to promote whatever brand is being pushed at the time, as well as to help move slowselling lines. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.



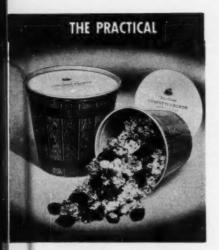


A combination shipping-display carton made of corrugated board and color printed with eye-catching metallic inks (see p. 110) brings "Service" kitchen towels, converted from flour bags, to a prominent place on the retail counter. The display container, easily set up by cutting along three edges, has an overall background of light blue, with metallic inks giving it a silver east. Line drawings and copy are in contrasting colors. Display, Stone Container Corp., Chicago.

# Directive selling

### HOW TO SUIT THE PACKAGE TO THE PURCHASER IS DEMONSTRATED

### BY MARY DODGE'S DIVERSE CONTAINERS FOR POPCORN CONFECTIONS



WAXED PAPER TUBS of stock design with printed lids provide low-cost package for Confetti Crunch bought just for the eating.



CONVENTIONAL round and rectangular set-up boxes are practical and effective at moderate cost. The corn-crib design motif is the Mary Dodge trademark used extensively on these packages.

This is a success story—a story of a woman, a small popcorn shop and a lot of ideas.

Several years ago a family by the name of Dodge moved to Studio City, Calif. There Mrs. Dodge set up a small popcorn shop for her eldest son. Harry, Jr., however, soon decided on bigger things and departed, leaving Mrs. Dodge to take over. She began to experiment with candied popcorn and finally perfected a method for covering the popcorn with chocolate. The process was patented and "Chocco-pops" were introduced to the candy trade. Mary Dodge was in business.

Her first mailing list was taken from license numbers of "nice-looking" cars. From there she began using mail-order booklets which, coupled with word-of-mouth advertising of satisfied customers, started the business rolling. Today Mary Dodge popcorn candies are also sold in a few big stores as well as some small shops in the United States and orders are shipped to foreign lands. The little popcorn shop has turned into a five-figure business.

One of her unusual packaging ideas, which she has put to work with great success, is the idea of putting up the same product in a wide variety of containers—ranging from simple, stock, waxed-paper tubs to ceramic dishes—to appeal to a wide range of consumer desires. The customer who purchases her popcorn confections—Choc-co-pops and Confetti Crunch—for her own consumption is happy with the low-cost paper container; those who want something different for a gift or for re-use of the container are glad to pay the extra cost.

By tailoring the container to fit the demand, a single item is made appealing to two distinct classifications of buyers—the one who buys candy for candy's sake and the other who buys a container with candy incidentally in it.

The first is satisfied with a plain,

inexpensive tub container or the conventional folding or telescope boxes; these customers are interested primarily in the product. The other and harder-to-reach group is looking for the unusual—something a little more than just candy. It is to satisfy this group who are seeking gifts that Mary Dodge has developed her unique range of packages.

For the latter group, she has chosen the containers for her products for their attractiveness and re-use value. One, taken from the Mary Dodge original trademark, is a wooden model of a corn crib and measures 8 by 4 by 4 in. It has a re-use value as a cigarette box or as a general utility box. Another idea is a pyrex baking dish, overwrapped with cellophane and set in a metal holder. The holder has convenient handles and is white baked enamel. It is hand decorated with a green, silver or gold leaf design and may be used as a casserole and serving dish. Another novel container is a gaily decorated metal popcorn popper with sliding top. This is also white enameled and decorated with red rose decals on the top and sides of the popper. It may be used as a unique server for popcorn, rolls or snacks when empty.

One of the outstanding packages in the higher-priced brackets is an aluminum bowl set. The confection is attractively packed in the bowls, overwrapped with cellophane and tied with contrasting ribbons. The set includes a large salad or serving bowl measuring 12 in. in diameter and 4 in. high, and four individual bowls 6 in. in diameter. The bowls are white enameled with the hand-decorated leaf design in gold, silver or green. They are sold as a set or may be purchased individually.

Among the more moderately priced containers, a set-up box of transparent plastic sheeting is used which allows the multicolored and flavored popcorn candies to be fully visible to the

# THE BEAUTIFUL



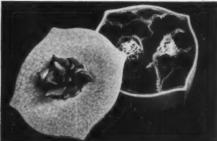
REAL CORN POPPER, white enamel with red rose decal, is smart hostess gift with re-use appeal.



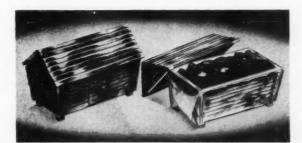
SET OF BOWLS of tastefully decorated aluminum is filled with confections, tied with cellophane.



PLASTIC BOXES are relatively inexpensive and have plenty of gift appeal when they are carefully packed and tied with colorful ribbon bows.



CERAMIC DISH presents Choe-co-pops in a luxury setting and is popular for re-use as a dresser tray. The dish cover has a ceramic rose handle.



'KORN KRIB' is hand made of wood and reproduces the company trademark. The roof of the crib forms the box lid. Contents are neatly cellophane overwrapped.

customer. These boxes, available in 1<sup>1</sup>/s-lb. and 11-oz. sizes, are tied with gaily colored ribbons and make an inexpensive and eye-catching package.

During the war Mary Dodge solved the problem of the vanishing tin can by adopting stock, waxed-paper tubs and they served the purpose so well that she is still using them. The container comes in two sizes—a large tub with a capacity of nearly 2 lbs. and a smaller one holding a little less than a pound of the popcorn candy. This container satisfies the customers' demand for an inexpensive, throw-away package while affording adequate

product protection during shipment,

These few examples demonstrate the flexibility of packaging for directive selling. Further possibilities for packaging Mary Dodge confections are limited only by questions of eye appeal and re-use value. By using a variety of containers, Mrs. Dodge is able to satisfy the gift-seeking clientele and the regular candy trade alike.

CREDITS: Waxed tubs (Lily-Tulip Cup Corp.'s Nestrite), Hollywood Paper Co., Los Angeles, and Dixon Supply Co., Inc., Los Angeles. Paper boxes, Gates Paper Co., Ltd., Los Angeles. Wooden "Korn Krib," hand made by Hurfey Hadlock, Studio City, Calif. Metal holder with pyrex and aluminum bowls. Florence Thomas, Pasadena, Calif. Transparent plastic boxes, Weaver Packaging, Glendale, Calif. Cellophane, Milprint, Inc., Milwaukee, Wis. Ceramic dishes, Robertson of Hollywood, Hollywood, Calif. Popcorn serving popper, Betty Lamb, Beverly Hills, Calif. Labels, inserts mailing pieces, etc., Jackson of Hollywood, Hollywood, Hollywood, Hollywood, Hollywood, Calif.

# 12th Packaging Institute Forum

RECORD ATTENDANCE EXPECTED AT HOTEL COMMODORE, OCT. 23-25

### FOR ENLIGHTENMENT ON PACKAGING PROBLEMS ENTAILED BY

### THE SNOWBALLING NATIONAL MOBILIZATION EFFORT

W ith the growing crisis in the United Nations Security Council, the build up of defense forces, strikes, shortages and price rises of packaging materials, the 12th Annual Forum of the Packaging Institute at the Hotel Commodore, New York City, Oct. 23-25, promises to be one of the best and most well attended of all the conventions of the Packaging Institute, according to E. H. Balkema, Colgate-Palmolive-Peet Co., program committee chairman. "It is forseeable," said Mr. Balkema, "that by October many problems of magnitudes greater than today's will face all companies who are packaging either consumer goods, industrial goods or military supplies. While no official pronouncements have been forthcoming up to the moment of writing, it requires no especially vivid imagination to believe that the Armed Forces will continue to build up to larger and larger size even when the 'cease fire' order is issued in Korea. National security demands that our military establishment be kept large and ready for prompt use.

"For this reason the program committee has no hesitation in developing a program for the forthcoming Forum that will endeavor to be enlightening to members on the packaging problems entailed by a snowballing national mobilization effort.

"Shortages are however not entirely attributable to the Korean situation and its consequences. The shortages brought about by strikes, such as the one in soda-ash producers, are factors of almost equal consequence in forward planning. Smaller glass users have been facing an unhappy supply future and some of them have already reported inability to obtain containers of this type.

"For these reasons the program of the 12th Annual Forum is planned to bring together a number of competent observers to present the outlook for packaging supplies as of Oct. 23, 1950. But, regardless of the military demands and domestic problems imposed by strikes, life must go on and goods must continue to be packaged.

"Our program will devote more than half of its available time to the advances in packaging science and techpology.

"Charles L. Barr, Institute president, will reveal for the first time fundamental figures regarding packaging developed by the studies conducted by the Packaging Institute. Those who have had access to these figures regard them as almost unbelievable, but their very numbers and constancy reveal a hitherto unrecognized fact: Packaging is a bigger job for most companies than production of the goods to be packaged. Yet packaging is often unrecognized and often not adequately controlled and coordinated.

"The foregoing fact leads naturally to a discussion of the need for better management of the Packaging Function—a subject to be discussed by an outstanding student of the problem."

In view of the increasing shortages and price rises, plus the accelerating military demands, the Monday afternoon (Oct. 23) session is of outstanding importance. Coming immediately after the luncheon address by Roy Segur, in charge of containers and packaging for the National Security Resources Board, it will be devoted to an examination of the current situation as it then exists.

Lee R. Forker of Quaker State Oil Co, has long been known in the National Assn. of Purchasing Agents for the accuracy of his forecasts of available supplies of packaging materials. With the assistance of a panel, the whole packaging outlook will be evaluated.

Even more important for those who are primary contractors with the Government will be the remainder of the Monday program, for here the Department of Defense procurement officials and the industrial suppliers are to be given an opportunity to ask questions of each other. The Government has been asked to have present the proper officials to present the Government's views and answer industry's questions. It bids fair to be an animated debate.

# Petroleum products session

Something new for the Packaging Institute is a full day's session devoted to Petroleum Products Packaging. This is not only of interest to all petroleum products people, but equally important to chemical manufacturers and all producers of liquid products in cans or users of shipping containers, for the same principles apply regardless of the origin of the product.

Packaging Printing and the Reproduction of Art Work on packages receives attention by a panel of specialists headed by Mr. Balkema. By coincidence, the organizing meeting of the Package Printing Committee to develop procedures for evaluating the printing of cartons and labels comes on the following day.

Technical sessions are to cover a wide variety of subjects important to packagers and will include papers on matters that are the result of extensive research projects, such as: How To Measure Odor Transfer Through Films, A Quick Way To Ascertain Moisture Equililibrium Figures, A New Way To Measure Pore Size in Packaging Materials, and Testing For Impact Fatigue.

### **Production sessions**

On Production Day, John A. Warren of American Home Products Co. heads a panel of four production men who not only have put high speed packaging lines into operation, but have solved difficult problems in doing it. This is the day for all production (*This article continued on page 196*)

# Transparent Boxes

the quality you want the quantity you need (a hundred to a million)

...ask BURT

F. N. Burt Company Inc., Manufacturers of Small
Set-up Boxes, Folding Cartons, Transparent Containers
500-540 Seneca Street, Buffalo 4, New York
Offices in Principal Cities Or Write Direct
Canadian Division: Dominion Paper Box Co., Ltd.
469-483 King Street W., Toronto, Canada



# NEW PACKAGE MAKES SALES





The cartons are made on our Palmer Carton Former

The new Puritan marshmallow package, consisting of four quarter-pound units individually wrapped, has given the Shotwell Manufacturing Company a "freshness" theme in merchandising that is greatly increasing sales. Here again "PACKAGE" had the machines to do the complete job . . . The cartons are economically made at high speed on our Palmer Carton Former . . . They are individually wrapped on our well-known Model FA . . . And are bundled in groups of four on our FA-2 machine.

Big advantage of this type of package is that it insures perfect enjoyment of the marshmallows because the individually wrapped packages keep them fresh until all used up.

This same idea is also being applied to crackers, and here, too, "PACKAGE" has supplied the most advanced of wrapping equipment. Our Model FA, with the new automatic cracker feeder, designed especially for wrapping crackers, not only counts out the correct number for a quarter-pound unit, but rejects any broken crackers. Its new flexible folding and sealing mechanism prevents breakage in the wrapping process, making large savings for biscuit manufacturers.

"PACKAGE" has the experience and the machines to meet modern packaging needs!



The cartons are wrapped individually on our Model FA and bundled in groups of 4 on our Model FA-2 machine.

NEW YORK CHICAGO BOSTON CLEVELAND ATLANTA DALLAS DENVER LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D.F.





# TECHNICAL

ENGINEERING . METHODS . TESTING

Charles A. Southwick Jr. . Technical Editor

# QM container problems

A TIMELY REPORT ON MILITARY-PACKAGING QUESTIONS ON WHICH

HELP FROM INDUSTRY TECHNICIANS IS NOW URGENTLY NEEDED

The report which follows is particularly timely in view of the emergency packaging program which now confronts us. Taken from the minutes of the Third Annual Meeting of the Associates, Food & Container Institute, held at Louisville, Ky., April 25-26, it discloses in interesting detail some of the unsolved problems in the development of improved packages for the Armed Forces. Transformed by the Korean war from routine research and development activity to matters of great urgency, these problems deserve the attention and cooperation of every technical man in the packaging field.

The report on flexible containers is by Leo E. Croy, chairman, Flexible Containers Subcommittee; the report on rigid containers, by Robert A. Rinschler, Institute coordinator, Rigid Container Subcommittee.

### Flexible containers

In June, 1949, the chairman of the Subcommittee on Flexible Containers met with representatives of the Container Laboratories, Quartermaster Food and Container Institute, to discuss the development of new testing procedures and/or modifications of existing testing procedures for determining the suitability of containers for shipment, storage and handling at temperatures as low as minus 80 deg. F.

As a result of this meeting a committee consisting of seven industry representatives of the various fields connected with flexible packaging was established, with an eighth member representing the Quartermaster Food and Container Institute. The committee personnel is as follows:

Paperboard industry: F. D. Long, Container Corp. of America, Chicago, chairman

Paper industry: Dr. Linton Simerl, Marathon Corp., Menasha, Wis.

Cellophane industry: Dr. Nelson Allen, Cellophane Division, E. I. du Pont de Nemours & Co., Wilmington,

Pliofilm and other transparent-materials industry: Dr. William Aiken, Goodyear Tire & Rubber Co., Akron, Ohio. Metal foil industry: T. M. Hill, Aluminum Co. of America, Pittsburgh, Pa.

Adhesive industry: S. F. Thune, National Starch Products, Chicago. Petroleum: F. H. MacLaren, Standard Oil Co., Whiting, Ind.

Secretary of the committee is Frank Rubinate of the Quartermaster Food and Container Institute.

This committee was not finally established until August, 1949, and met at the Quartermaster Food and Container Institute for the first time in October, at which meeting a course of action was outlined.

As a result of the meeting, tests were conducted on packaging ma-

1. COLD ROOM conditions under which.' packages are tested at Quartermaster Food & Container Institute at minus 40 deg. F. Needed are facilities and instruments for testing at 80 deg. below.



FIG. 2 EFFECT OF PLASTICIZERS OR SPECIAL TREATMENT

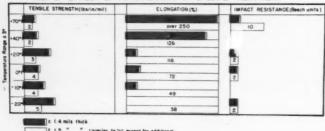


FIG. 3 FEFFCT OF LAMINATING

NGTH (lbs/in/mil)	ELONGATION (L)	IMPACT RESISTANCE ( Beech units	
		3	
	over 250 °	14	
	over 250	-	
	over 250°	13	
		1 2	
	over 250'	]3	
	3		
	0	-	
		2 2	
		2	
		13	
	- 15 - 1	Over 250 '	

FIG. 4 EFFECT OF COATING

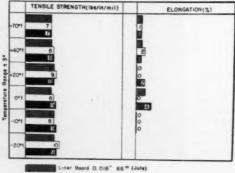
# 

A 22 mls thick

A costed to 8 A - Imil thick 8 - 50 Kraft

All measurements Mochine Direction - Limit of tensile tester

FIG. 5 VARIOUS LINER BOARDS AND PAPERS



Jule Liner Board 0.018" 66" (Jule)

Jule Liner Board 0.014" 51"

Kraft 0.012" 45"

terials, using a Scott tensile tester to determine tensile strength and elongation, and the Beach puncture tester to determine resistance to impact. The materials were tested and compared at various temperatures from room temperature down to minus 40 deg. F. Tensile and elongation were limited to minus 20 deg. F. because of failure of the Scott tensile tester to operate below this temperature.

The photograph shown as Fig. 1 was taken in the Quartermaster Food and Container Institute Cold Chamber, which can be operated at minus 40 deg. F., to show the conditions under which the tests were run. This temperature can be maintained for only a few days at a time. Shown is the 31/2-ft, revolving drum which was built at the Ouartermaster Food and Container Institute. It is a half-scale reproduction of the standard 7-ft. revolving drum used for rough-handling tests of shipping containers. Construction of the drum was completed too late for use prior to this report. You will note that the technician is dressed in typical Arctic clothing, which is necessary for such low temperatures.

The effect of adding plasticizers to a homogeneous, non-fibrous material is shown in Fig. 2. Material "C" shown in color is compared with the same basic material shown in white treated to withstand low temperatures and used for the packaging of frozen foods.

(On all of the charts shown herewith, the figure on the bar shows test value; the tensile report is on a 1-mil basis for purposes of comparison. Figures for elongation and impact resistance are actual values. Since some values are small, the scale has been enlarged for purposes of comparison.)

The chart in Fig. 2 indicates that the tensile strength of plasticized material is lower than the plain, but the elongation is higher, and that the plasticizer has negligible effect on the impact resistance except at plus 70 deg. F.

The effect of laminating on a homogeneous, non-fibrous material is shown in Fig. 3. Material "C" (shown in color and same as shown in color in Fig. 2) is compared with a lamination consisting of two sheets of the same material (shown in white).

Again the tensile of the laminated sheet is lower than the single sheet except at plus 70 deg. F. and minus 10 deg. F., but the elongation is



6. CRUSHING AND SAGGING of commercial-type packs of toilet tissue is shown in this photo of stock in GM warehouse.

FIG. 7

STUDY CONDUCTED BY THE OMF & CI HAS SHOWN THAT THE TOILET TISSUE PACKS IN ORDER OF PREFERENCE ARE:

	PACK "A"	PACK"B"	PACK "C"	PACK "D"
GROSS WEIGHT	40	36	37	61
CUBIC FEET APPROX.	2.1	2.6	2.7	5.1
QUANTITY ROLLS	60	60	64	100



ACHINE CRUSH HAND CRUSH

UNCRUSHED CURRENT PROCURE-MENT

'NORMAL INDUSTRY PACK'

greater. Laminating also improves the impact resistance. The effect of coating a homogeneous, non-fibrous material on kraft paper is shown in Fig. 4, which compares material "A" (shown in color) with the same material when applied as a coating on kraft paper (shown in white). The kraft paper adds greatly to the tensile strength of the combination "A" and indicates that elongation properties are lost when material is coated on kraft paper. The elongation of material "A" is beyond limit of machine. Fig. 5 shows tests on various liner boards and paper, comparing three types of container board shown in color, white and black and indicating slight differences in the values of tensile or elongation properties.

The problem on which I have just reported is the most important problem coming under flexible packaging. This problem instructs us to work in temperatures of minus 80 deg. F., and the present facilities at the Quartermaster Food and Container Institute at Chicago are not sufficient to carry on research investigations at such low temperatures. While some progress has been made as the result of the direction and recommendations of the committee and because of the work done by the Quartermaster Food and Container Institute, it is my opinion that this important problem cannot be

advanced until facilities and instruments of the necessary cold-room type are made available.

### Adhesives

The Quartermaster Food and Container Institute has been working closely with more than 12 manufacturers of adhesives and converters of packaging material to find an adhesive suitable for laminating packaging materials and sealing containers for use at sub-zero temperatures. To date, no adhesive has been found which is satisfactory even as low as minus 40 deg. F.

One compound to be used as a preservative for kitchen and bakery

8. INDUSTRY PACK of paper napkins also shows sagging and buckling in warehouse stacks.

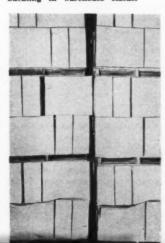
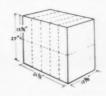


FIG. 9 COMPARISON OF NAPKIN PACKS				
	Q MF & CI COMPRESSED PACK "A"	COMPRESSED PACK "B"	(NDUSTRY PACK	
QUANTITY	10,000	12,000	10,000	
MO OF UNIT PIXES.	10	12	10	
APPROXIMATE BROSS WEIGHT	59	72	60	
APPROXIMATE CUBIC FEET	4.23	5.68	7.2	







utensils has been submitted by industry, but was found unsuitable for use because it was too heavy and too tacky. The company which submitted the sample has agreed to work with the Institute on this problem. Information has been received that the Ordnance Department has a material which may be satisfactory, but this material is awaiting approval of the Office of the Surgeon General from the standpoint of toxicity. To date, insufficient information has been supplied to enable the Institute to evaluate this preservative.

A program for testing commercial 5- and 10-lb. paper packets of sugar packed in five-ply multiwall paper balers for overseas shipment is under way with the Paper Shipping Sack Mfrs. Assn. The testing program will begin when the association has completed arrangements for supplying materials to be tested and for the packing of the sugar by a commercial packer.

A series of tests on six types of bags for overseas shipment of 94 lbs. of High Early Type cement has just been completed. The data are being analyzed and the report is being prepared at the present time. The Department of the Navy and the Paper Shipping Sack Mfrs. Assn. cooperated

in conducting this series of tests with the Quartermaster Food and Container Institute.

#### Case liners

The following problems, being similar, have been combined into one group for convenience:

Waterproof case liner for clothing Sealed waterproof case liner for leather products

Sealed waterproof case liner for naphthalene flakes

Sealed waterproof case liner for

To expedite solution of these problems, a committee composed of representatives of four manufacturers of waterproof papers was established in December, 1949. This committee is as follows:

Dr. M. L. Downs, Thilmany Pulp & Paper Co., Kaukauna, Wis.

& Paper Co., Kaukauna, Wis. Robert H. Wood, Simplex Paper Corp., Adrian, Mich.

F. F. Newkirk, The Sisalkraft Co., American Reenforced Paper Co., Attleboro, Mass.

B. K. Clifford, Union Bag & Paper Corp., Hudson Falls, N. Y.

In January, 1950, the committee held its first meeting at the Institute. The problems were analyzed and the committee voted to submit a report to the technical committee of the Waterproof Paper Mfrs. Assn. with a recommendation that the report be circulated to the membership of the association. Several matters are to be discussed with the technical committee of the Waterproof Paper Mfrs. Assn.

A 50-lb. sample of naphthalene flakes has been furnished to the research laboratories of one company for testing their own material as a possible solution to this problem.

# Paper products

A survey of the stock of containers for napkins, sanitary tissues, paper towels and toilet tissue in Quartermaster depots has revealed that the commercial pack of 100 rolls in a fibreboard carton will not withstand stacking or palletization for any length of time. These items are of necessity procured on a military-requirement basis for a fiscal year and stocked in various general depots for subsequent issue to using destinations.

Fig. 6 shows tissue stacked in a depot. Note the crushing and sagging of containers. Fig. 7 shows the various types of pack considered. Pack



10. SPOT-SOLDERED ean.
Arrows indicate soldered spots.



11. INDENTING of the plug to the friction ring is shown.



12. SNAP-ON cap type of closure, shown complete with can.



13. EXPLODED VIEW of the snap-on cap assembly, can body.

"A" is the one used by industry during the war and one which was very satisfactory for handling, shipping and storage by the Quartermaster Corps. Contrast this with the present industry pack shown on the right (Pack "D"). The excess space which has developed in the pack after storage and handling has been filled in with strips of corrugated fibreboard at the bottom and the left of the illustration. This pack is completely unsuited to shipping, storage and handling by the

Quartermaster Corps.

Packs "B" and "C" were developed by the Quartermaster Food and Container Institute and along with Pack "A" were proposed to the Tissue Assn. for use on Quartermaster Corps contracts. The association has refused to accept any variation from the standard pack (Pack "D" on the chart) for various reasons, among which was the fact that the Armed Services purchases at the present time are at most 3% of total consumption. Toilet tissue purchased in 1949 (by the Quartermaster Corps) aggregated 60,000 tons, which is being packed in containers unsuitable for use. Packs "A" or "B" would be desirable.

Arrangements have been made to secure from one supplier toilet tissue packed 64 count. When this merchandise arrives at the general depots, periodic surveys will be made to determine if this package (Pack "C") will withstand handling, storage and subsequent shipment to using destinations.

The Tissue Assn. has expressed a willingness to discuss this problem further. It is recommended that the Associates, Quartermaster Food and Container Institute, arrange for a meeting with the Tissue Assn. to determine if a pack which will more closely resemble Pack "A" can be obtained for peacetime use.

Paper napkins received from contractors in commercially packed corrugated containers are presenting a problem in handling and storage in Quartermaster Depots. The napkins are not tightly wrapped or packed, so that bending, sagging and crushing of the container occur during shipment and subsequent storage of the con-

Fig. 8 is a picture of napkins stored in a depot. Note sagging and buckling of containers. Three corrugated containers which were designed by the Quartermaster Food and Container Institute and packed with compressed napkins, are shown in Fig. 9, which indicates a savings in weight and cube in comparison with the pack currently supplied by industry. This will be referred back to the napkin industry in an attempt to secure a suitable pack which can be supplied by the manufacturers.

# Rigid containers

In a great many instances, especially in overseas shipment, the multiple-friction-plug closures on standard multiple-friction-plug cans become disengaged in transit, spewing the contents throughout the exterior shipping container and adjacent cargo. To eliminate this deficiency it is imperative to develop a more positive closure which will perform in the same manner as a round, open-top, hermetically sealed can.

At present, multiple-friction-plug cans of 1-gal. capacity for overseas



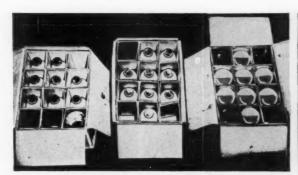
14. JAM CANS which are fitted with tear-tab opening (left and scored-top opening.

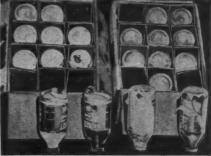


15. OPENING a tear-tab can.

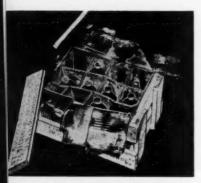


OPENING a secred can.





17 and 18. GLASS-PACKED PRODUCTS, such as vinegar and stabilized cream, have been packed in these types of fibreboard containers. Insufficient protection against bottle breakage and seepage is provided.



19. SINGLE FIBREBOARD container in a nailed wood crate.



20. DUPLEX FIBREBOARD container in a nailed wood box.

shipment are being spot soldered to the friction ring at three points equidistant from each other on the periphery of the plug. Fig. 10 illustrates this spot soldering. This method is not completely satisfactory for handling and shipping because plugs, in numerous cases, still become disengaged in transit. To overcome this deficiency, industry has submitted to the Institute a standard multiple-friction-plug can which, after seating of plug, has been indented at six equidistant points around the inside periphery of the plug closure.

Fig. 11 illustrates indenting of plug to friction ring. This method is still in the development stage, but the closure has been so good that the plug cannot be disengaged without damaging or distorting the can. Work is continuing to determine the balanced medium for indenting of plug to ring.

Another type of can which has come to the attention of the Institute consists of a body with a protruding shoulder, sealed by a snap-on, captype closure which is then fitted with a retaining ring-type cover. This closure is a patented item and is currently used in packaging paints and related products. Fig. 12 illustrates the complete can. Fig. 13 illustrates the body, the cap closure and the sealing ring. This type of can and closure must be impact tested to determine its ability to withstand rough handling in storage and transit. Furthermore, since it is a patented feature, complete investigation concerning patent rights and license must be made prior to authorization.

As the referenced types of closures have not proved to be entirely satisfactory for overseas shipment, the Institute is highly interested in the improvement of the current standard multiple-friction-plug can and its closure.

### Can opening

Fig. 14 illustrates the tear-tab and the scored-top type of can for jam. Fig. 15 illustrates the tear-tab can with the tab broken. You will note that a sharp instrument must be used to open the can. The tear-tab can is constructed of a one-piece drawn body. The tear-tab can has a compound-lined lid held in place by an aluminum tear strip. The utility in the field has not been entirely satisfactory due to a high percentage of failure of the tear tabs. Furthermore, only one company can produce this particular can at the present time.

Fig. 16 indicates the scored-top can being opened by a sharp instrument. The scored-top can has a one-piece drawn body, is compound lined and has a double-seamed top, with a scored line for opening with a sharp instrument. This container can be opened with the folding can opener furnished in the C-Ration pack. Its utility in the field again is not entirely satisfactory.

Both types of cans are acceptable under the current specification. The problem of an improved type of jam container, which will give improved utility in the field through an easier opening, has been referred to the Can Mfrs. Institute. Only two companies have contacted the Container Laboratories and expressed a willingness to cooperate and resolve the problem. One has expressed an interest, but to date no information or samples illus- (This article continued on page 181)



21. FIBREBOARD with inner liner and cell spacers, wrapper with waterproof barrier material and overpacked in wood box.



22. CELLULOSE WADDING sleeves for each individual bottle and complete 2-in. lining for the wooden box.



23. PROMISING METHOD is cellulose-wadding pocket, top sealed, in fibreboard case.

## Squeeze-bottle tests

#### THE RELATION OF WALL THICKNESS TO PERMEABILITY RATES

OF POLYETHYLENE BOTTLES. By A. R. Nielsen\* and J. H. Parliman\*

From a 3,000,000-bottle annual production in the early postwar years, the plastic-bottle industry has expanded to 50,000,000 per year and expansion plans indicate a doubling of the present production figure. Figures such as these indicate a considerable number of plastic-bottle users and a far greater number of concerns interested enough to test their products in the bottles. By far, most of the plastic bottles are made from polyethylene—the familiar "squeeze bottle."

The authors' company, one of the manufacturers of plastic bottles, tests all products which customers package in their bottles and most of the products which customers contemplate packaging. This testing is not a substitute for the customer's own laboratory testing, but rather, a direct customer service. Furthermore, some control can then be exercised over the possible unwise use of the bottles. In line with the great emphasis on polyethylene, most testing is carried out using polyethylene bottles, but cellulose acetate, polystyrene and other plastic materials are also employed.

Loss of weight due to permeation of product through the walls of the bottle is usually one of the first things considered in plastic-bottle packaging. It happens that most cosmetics and a good percentage of industrial products have water and/or alcohol as principal ingredients. Both water and the alcohols have low permeation rates for polyethylene. A typical product percentage net weight loss per year for water-base liquids in polyethylene bottles is 0.5%. For alcohol products the figure is less than 2.5%. However, almost any product has at times been considered for packaging in polyethylene bottles and some of these have such high transmission rates as to give a very short shelf life. Luckily this type of product is encountered comparatively infrequently. Examples would be certain cleaning fluids, cigarette-lighter fluids and some kerosene-base insecticides. Thus, testing of all products is a necessity.

Past work (1) (2) \*\* on polyethylene permeability served as a basis for the establishment of routine polyethylene-bottle package tests. In addition, other testing of a fundamental nature has been carried out. In this article, data are presented on only two of the many variables involved—bottle wall thickness and the percentage of liquid and vapor phases.

For thicknesses up to 10 mils, the permeation of polyethylene varies quite closely as the inverse of the thickness. However, few data are available on thicknesses equivalent to typical bottle walls, which are usually over 20 mils. Therefore, 4-oz. blow-molded polyethylene bottles having average wall thicknesses from 9 to 66 mils were tested.

For liquids permeating polyethylene at very high rates it has been shown (3) that the liquid phase is transmitted two to four times as fast as the vapor phase. Little information

was available, however, for the more frequently encountered slowly permeating liquids; so bottles containing four different levels of liquids were tested-full, \*/\* full, \*/\* full and \*/\* full.

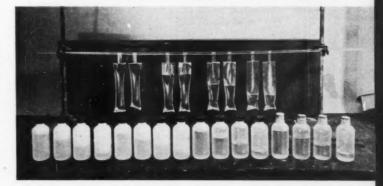
For these tests, three common liquids were selected-water, ethyl acetate and toluene. Corresponding permeability rates for these materials are 0.17, 16 and 320 gms./day/100 sq. in./0.001 in. thickness at room temperature using a thin-wall bag test (1) (2). Water would be considered as having a low permeation rate for polyethylene, ethyl acetate a high rate and toluene a very high rate. Normally a value of 2.0 or under is used as a rule-of-thumb maximum rate for estimating whether a given liquid can be successfully packaged in polyethylene bottles. All three liquids are easily obtainable and do not present instability or impurity problems, and they represent a good percentage of the total range of polyethylene permeability rates.

#### Method of testing

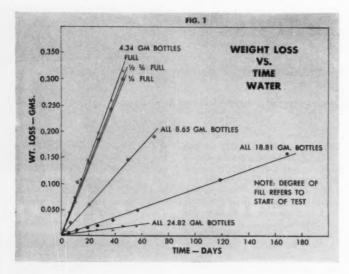
Four-ounce Boston round, 24-mm. #400 finish polyethylene blow-molded bottles were chosen for testing. When

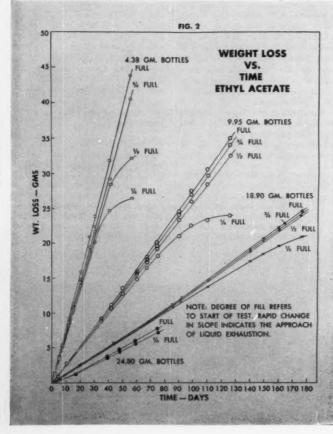
\*\* Numbers in parentheses identify "References" appended.

TESTS were made with 4-oz. Boston round blow-molded polyethylene bottles divided into four weight groups filled full, ¾ full, ½ full and ¼ full. Standard heat-sealed polyethylene bags of 20-sq.-in. surface area, in two different wall thicknesses, were also prepared for the tests described.



<sup>\*</sup> Research & Development Dept., Plax Corp., Hartford, Conn. † Technical Service, Plax Corp.





empty, they fell into four weight groups-4, 8-10, 18 and 24 gm., weighed to ± 0.05 gm. The bottle weights for each test group did not vary more than ± 0.10 gm. and in some instances the variation was less. These weights correspond to about 9 mils, 19-22 mils, 48 mils and 66 mils average wall thickness. The bottles in each weight group were then filled 1/4 full, 1/2 full, 8/4 full and full. A full bottle is defined as one in which the fluid level is at the shoulder of the bottle. The liquid levels of the partially filled bottles were based on the weight of the fluid contained in the full bottle.

Bakelite caps with 0.050-in. homogeneous polyethylene liners were used to seal the bottles except in the case of the 4-gm. group. Here, because of the thinness of the neck, cork stoppers were used, paraffin sealed.

The ethyl acetate and toluene-filled test bottles were weighed to ±0.05 gm. and the water-filled bottles to ±0.005 gm. (±0.001 gm. for heaviest-weight bottles) over periods varying from three to 193 experimental days. The average wall thickness is the average of eight micrometer readings around the cirmumference of a bottle wall about ½ the distance between the shoulder and bottom. All tests which were made were conducted at room temperature.

For the bag tests (1) (2) the standard Plax polyethylene bag was used with a surface area of 20 sq. in. and an average wall thickness of 1.4 to 1.6 mils. The full bag was filled as full as possible (about 98% liquid), permitting a liquid-tight heat seal. Partially filled bags were based on this weight.

The permeability rates were then obtained from the slopes of the curves plotted for weight loss versus time.

#### Experimental data

Figs. 1, 2 and 3 are curves for weight loss versus time for water, ethyl acetate and toluene, respectively. In the case of ethyl acetate, 14 curves could be plotted for the different liquid levels and bottle weights. Only the full and ½-full ethyl acetate bottles in the heaviest group were plotted. However, for water the differences in weight losses were not significant and curves could not be plotted for different liquid levels except in the case of the lightest-weight bottles. Even for these bottles, weight losses were so nearly the same for

the 1/2- and 4/4-full bottles that only one curve was used.

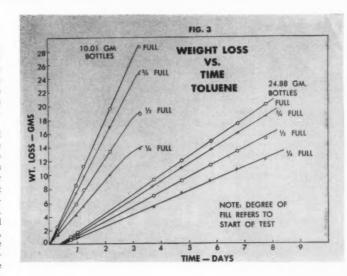
For toluene only three different weight groups were tested and, of these, curves are shown for only the lightest (10-gm. weight) and the heaviest (24-gm. weight) bottles. The 18-gm. bottle curves overlapped the other two sets of curves so as to confuse the data.

Straight-line curves were obtained for all the water bottles. There were no appreciable differences between the percentage liquid and vapor phases at the beginning and end of the water test. The 18-gm. water bottles lost only about 0.17 gm. in 193 days—about 0.29% net weight loss per year.

While straight lines were obtained for the heaviest ethyl acetate bottles, there was the beginning of a decrease in the rate of transmission for the 18-gm., <sup>1</sup>/<sub>4</sub>-filled bottle and a very definite reduction of rate for the 10-gm., <sup>1</sup>/<sub>4</sub>-filled bottle. In the case of the 4-gm. bottles, this decrease in rate was noted for the <sup>1</sup>/<sub>8</sub>-full as well as for the <sup>1</sup>/<sub>4</sub>-full bottle. Where the liquid permeates rapidly, the rate of loss finally starts to diminish as the liquid level drops.

For toluene this reduction of slope in the curves was noticeable for all 10- and 18-gm. bottles except the full 10-gm. bottle, even though the duration of the 10-gm. bottle test was only three days. In this instance the permeation rate was so very high as to appreciably affect the ratio of liquid and vapor phases in a matter of only a few days.

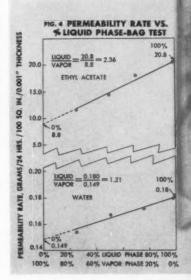
Using Figs. 1, 2 and 3, weight losses per day per bottle were calculated using only the straight portions of the curves. Table I gives a summary of this weight-loss data for the three fluids tested at the four liquid



levels in each weight group. Also included is the average weight of the bottles, wall thicknesses and lengths of the various tests. From these data it will be seen that for water there was no appreciable difference in the loss in weights between full and partially full bottles except for the very thin wall, 4-gm. bottles. For 8-gm. bottles, only a difference between the full and the '/-full bottles could be noted.

However, for ethyl acetate both Fig. 2 and Table I indicate that the differences between the loss in weight from the various level bottles are easily detectable except for the heaviest bottles.

Fig. 3 and Table I indicate great differences in the transmission rates of toluene-containing bottles having



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T	4	DI		2	1

Test	Average wt. of bottle	Average wall thick- ness in	Length of test		Loss in wt	./day/bottle	
liquid	in grams	mils	in days	Full	a/a full	1/2 full	1/4 full
Water	4.34	9	46	0.0069	0.0066	0.0065	0.0063
	8.65	19	70	0.0033	0.0025	0.0029	0.0026
	18.81	48	193	0.00088	0.00087	0.00089	0.00089
	24.82	66	51	0.0004	0.0004	0.0004	0.0004
Ethyl acetate	4.34	9	56	0.80	0.74	0.73	0.69
,	9.95	22	125	0.29	0.27	0.26	0.25
	18.90	48	176	0.15	0.14	0.14	0.13
	24.80	66	75	0.11	0.11	0.11	0.10
Toluene	10.01	22	3	9.0	7.6	6.1	4.5
	18.76	48	7	4.1	3.6	2.8	2.3
	24.88	66	8	2.7	2.5	2.1	1.7

different liquid levels. A full 10-gm. bottle lost nearly twice the weight of toluene as a 1/4-full bottle.

In order to determine more accurately the effect of the liquid-vapor phase variable on the polyethylene permeability rate, thin-wall polyethylene bags were used to determine the permeability rates to water and ethyl accetate for various percentages of liquid phases. Bags were tested as pre-

viously described filled 25% to 98% with liquid. Fig. 4 gives curves for permeability rate, P, versus percentage liquid phase using this bag test. Extrapolation was used to obtain polyethylene permeability rates for 100% liquid and 100% vapor phases. The ratio of the permeability rates for 100% liquid to 100% vapor was 2.36 for ethyl acetate. The ratio was 1.21 for water. This agrees with the data as discussed for the bottle tests. There is appreciably faster transmission from the liquid phase compared to the vapor phase for ethyl acetate, but only a small difference for water.

Myers and Phillips' (3) liquid-phase transmission rates were approximately two to four times as great as the vapor-phase rates, using xylene, high octane gasoline, carbon tetrachloride and trichloroethylene as test liquids. Polyethylene permeability rates for these four liquids are high, with P equal to 260 for xylene, 440 for gasoline and 600 for carbon tetrachloride reported (1) (thin-wall bag test). Using the same test, toluene has a permeability rate of 320. On the other hand, water has a rate of only 0.17 and ethyl acetate 16. Myers and Phillips did not report comparison of transmission rates for liquid and vapor phases for liquids having rates as low as water, or even ethyl acetate which is transmitted 100 times as fast as water.

It is apparent that while rapidly permeating liquids are greatly affected by the liquid-vapor phase variable in polyethylene containers, there is very little effect for slow transmitters, such as water. Thus, when testing commercial liquids in polyethylene bottles to determine the percentage loss in weight during long-time shelf storage, the exact liquid level is not critical so long as the bottle is approximately full. The liquid level would only be important for fast transmitters which could not be packaged successfully in the bottles anyway.

It is assumed that the difference in transmission rates between the liquid and vapor phases is due to a faster solution of the permeating liquid in the polyethylene from the liquid phase, than from the vapor phase. Where there is a high solubility of the material in polyethylene, as in the case of toluene, it dissolves faster in the liquid phase than in the vapor phase.

Fig. 5 gives plots of the average bottle wall thickness and bottle weight versus the loss in weight per day per bottle for water, ethyl acetate and toluene. Curves were plotted for full bottles only. An ideal curve was plotted for each of the liquids. This "ideal" curve was considered to be the slope which would be obtained if the loss in weight per day were inversely proportional to the wall thickness or weight of the bottle.

Ideal and experimental curves agreed in only one instance. This was in the case of the ethyl acetate wall-thickness curve. In all other cases the loss was less than would be expected from the ideal curve, indicating greater than expected efficiency for heavy-wall bottles.

For all three liquids, slopes for the bottle weights indicated less than ideal losses. This can partially be explained by the varying proportion of the material contained in the side walls. The nature of the blow-molding process for polyethylene bottles is such that in a 4-oz. Boston round bottle of this type a slightly greater percentage of material is blown into the side walls as the weight of the bottle is increased.

For instance, a 4-gm. bottle has approximately 58% of its total weight in the side walls while a 66-mil bottle would have almost 66% in the side walls. Therefore, as the weight of the bottle is increased, less and less material is needed to give each additional mil thickness in the side wall. Over three-quarters of the total surface area is in the side walls. Again, these data are in agreement with the work of Myers and Phillips. They found for trichloroethylene a similar increase in efficiency with increased wall thickness.

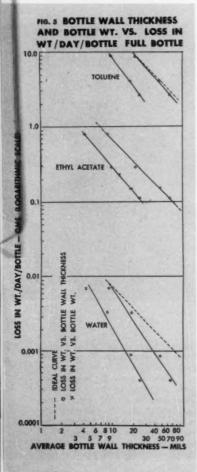
#### Further work

Data presented in this article definitely indicate greater effect of % liquid phase on faster-permeating liquids. However, the number of materials tested was only three and several other typical liquids should be tested to indicate this point conclusively. Methyl alcohol, with a permeability rate about 10 times that of water, and turpentine, with a rate almost four times that of ethyl acetate, are possibilities.

Further and more refined work on the effect of thickness on polyethylene permeability rates for 20 mils and upwards is indicated. This work is of a rather practical nature because of test containers used. Less variables would be involved using heavy sheeting in test cups. Also considerably heavier gauges and more accurate gauge control would be possible. Straight lines were used in Fig. 5 because of the small number of points. However, there is at least an indication from the points on the water curves of even less transmission for thicknesses above 66 mils than was shown by the curves as drawn.

#### References

- Parliman, J. H., "Polyethylene Permeability," MODERN PACKAGING, July, 1948, p. 198.
- 2. Parliman, J. H., "Polyethylene Permeability-II," MODERN PACKAGING, March, 1949, p. 119.
- 3. Myers, C. S. and Phillips, F. R., "Permeability of Polyethylene Films and Sheeting to Volatile Liquids," abstract of Report DL-32, Bakelite Corp.





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## Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

#### Packaging one-time-use powder

QUESTION: We are trying to package a very perishable, coarse-grained powder in an airtight container which would dissolve instantaneously in water at 160 deg. F. The container must be non-absorbent and must hold a quantity equal to about two level teaspoonfuls. The product is to be used in the making of a hot drink. We have considered sealing the powder in gelatin film which would dissolve instantaneously in hot water, or in cellophane bags using a combination of a filter paper and cellophane. We would appreciate your suggestions or ideas for a container.

ANSWER: It is not clear as to the exact protection which your product requires. If it is highly hygroscopic, the packaging can be accomplished without airtightness. If it is susceptible to oxidation, then it may be necessary to use glass jars, metal cans or heat-sealed foil. Sealing the powder in a gelatin capsule or film would not protect against moisture gain and so the gelatin capsule should be placed in a metal can or glass jar for moistureproofness or airtightness. If the product is to be steeped, then it could be packaged in a heat-sealing filter paper such as is used for tea bags and these units placed in moisture proof cellophane envelopes if only moisture proofness is required, or in metal cans or glass jars if airtightness is a factor. It will be necessary for you first to determine how your product is to be used and some of its characteristics before you can intelligently contact either a custom-packaging company or a manufacturer of packages or packaging materials.

#### Plastics as water-vapor barriers

QUESTION: We are interested in information concerning the ability of plastics to resist the penetration of water vapor. We are attempting to preserve certain dried biological products for long periods under storage slightly above the freezing point. However, we have had difficulty with moisture entering through our rubber closures and even this small amount of moisture affects the potency of our product. Can we use a plastic in place of rubber and still obtain sealing to the glass finish? Can we cover the entire bottle with a plastic which can easily be removed?

ANSWER: All organic materials have some permeability to water vapor and the amount transmitted will depend upon the particular material, its thickness, temperature and time of storage and the vapor-pressure differentials between the interior and exterior of the container. Apparently, your product is extremely sensitive to moisture pick up, since the total amount of water which would penetrate a rubber closure at the temperatures you indicate would be very small even over an extended period of time. Rubber is not as effective a moisture barrier as some of the plastics, but it is doubtful if the plastics would prove as effective as closures, since they might not satisfy the mechanical and certain other of your particular requirements.

The best way to improve the function of your present closure and to reduce leakage between the rubber and the glass would be to use a secondary metal cap or closure. The proper form of such a cap would reduce the integrity of the seal of the rubber against the glass.

You should also consider the use of a small amount of desiccating material which would be held in the neck of your bottle or attached to the closure. The use of a desiccating agent would adsorb the small amount of moisture which is entering through your present closure and would insure

that no moisture could reach your

There would be no advantage in attempting to dip the completed package in a plastic composition. This procedure would be involved and expensive and would not materially affect the moisture penetration. Such plastic coatings over bottles are very useful in preventing serious effects from the breakage of bottles containing dangerous materials, but this result would not be necessary in your particular case.

#### Laminating film to paperboard

QUESTION: We are interested in information on the techniques of laminating thin-gauge acetate film to paperboard. Do you have published articles giving this detail, or can you indicate a source of such information? We require a product of this type because of the gloss and scuff resistance it imparts to the paperboard.

ANSWER: At various times articles have appeared giving general information on lamination processes of this type. However, it will be necessary for you to apply this information to your specific equipment, paperboard and acetate film, as well as to the end use. There are many adhesives that will adhere acetate both to paper and to paperboard. The choice of adhesive depends on whether the acetate is printed or plain, upon the finish of the product and how the laminated combination is to be fabricated. It is also important to know if the laminated structure will be subject to unusual temperature extremes, to oils or fats, or to any other unusual circumstances which might tend to affect its stability or adhesion. There are also a great many techniques for applying the adhesive. The one you use will depend upon the limitations of your machinery.







† "A Pint O' Sundaes" (special ice cream carton and syrup topping packed in saran-phofilm laminated pouch) manufactured and distrib ited by Nu-Pak Products, Inc. 340 West Huron Street, Chicago 10, Ill.

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### **Equipment and Materials**

#### SHEET PLASTIC CYLINDER FABRICATORS

for transparent packages and visual displays have just been made available by the Taber Instrument Corp., 119 Goundry St., North Tonawanda, N. Y. Called the Taber Model 138, the machine features a cylinder automatically sized to exact diameter before the lap point is sealed, which is said to elimi-



nate variation in diameter due to looseness of wrap of the sheet around a solid mandrel commonly used. A 2-in. precision adjustment in diameter is accomplished by turning a single hand knob operating a fine thread screw on top of the machine. A set of five mandrels is available for producing cylinders from 2½ to 8½

in. in diameter and up to 10 in. in length. The machine, operated by foot treadle, is equipped with a wick-type solvent applicator. The Model 138 cylinder fabricator is a companion machine to the company's Model 135 cylinder beader.

#### LARGE-SIZED POLYETHYLENE BOTTLES

for shipment of quantities of corrosive chemicals in excess of one gallon, have been developed by Tom Lawson Associates, 8 W. 40th St., New York 18. The bottles are formed of two 'spin. walls which are molded to shape and heat sealed for a full-round light-weight container said to be capable of withstanding internal pressures of at least 200 psi. Special molds can be designed for runs of as low as 5,000 pieces.

#### A NEW DISPOSABLE CLOSURE

for liquid-food jars designed to increase eye appeal and afford added convenience for the consumer features an adaptation of the Dripcut stainless steel cut-off slide. This efficient Dripcut disposable closure is designed to



disposable closure is designed to increase sales at little cost to production of food package goods. The functional nature of the new closure is said to have wide consumer appeal, since it saves time and adds to kitchen efficiency. The closures fit all standard 48 and 53 mm. jars and are available in three colors: yellow, red and green. Complete details are available from the manufacturer, Dispensers, Inc., 6235 S. Manhatten Place, Los Angeles.

#### AUTOMATIC IMPRINTERS FOR ICE-CREAM CARTONS

are being offered by the Wrap-Ade Machine Co., 83 Valley St., Belleville, N. J. This new Wrap-Ade Flavor Printer is designed to imprint flavors on 1-pt. ice-cream containers so that the manufacturer does not have to carry high inventories. The unit operates at a speed of 60 per minute and one operator can handle the filling of the magazine and take off the printed cartons. The hot-leaf stamping method is used, which is said to produce imprints of any color which cannot be smeared and

which appear as part of the original print job. Change from one flavor to another is said to take only about 1 minute. The machine is said to be inexpensive in cost and maintenance.

#### A NEW FATIGUE TESTER

for testing loaded paperboard, fibreboard and wooden shipping cartons and boxes, manufactured by L. O. Koven & Bro., Inc., Jersey City, N. J., establishes test procedures that are said to indicate (1) the ability of a container to withstand various shocks and impact stresses simulating those which may

be expected in handling and shipping, (2) the ability of packing and carton designs to protect the contents when subjected to such shocks and stresses and (3) comparison of different designs of containers of the same size and carrying the same load. The tester is built in two models. The Model A is capable of handling containers up to 20 by 20 by 20 in. in size and not exceeding 250 lbs. in gross weight. Model B handles containers having a length of over 20 in.



and up to about 72 in., weighing up to 1,000 lbs. gross. One of the Model A machines is now in use by the Minnesota Mining & Mfg. Co. in St. Paul, Minn., for testing tapes.

#### A NEW FOOT-OPERATED PORTABLE NAILER

has been developed which is said to drive through light metal, prestwood and both hard and soft woods five times faster than ordinary nailing. The nailer, developed by the Heller Co., 2131-A Superior Ave., Cleveland 14, Ohio, drives and countersinks spear-pointed Heller lock nails <sup>17</sup>/<sub>10</sub> to <sup>17</sup>/<sub>10</sub> in. in length.

#### ROTARY GLUE BAG-SEALING MACHINES

for non-heat-sealing materials have been introduced by Amsco Packaging Machinery, Inc., Long Island City, N. Y. This completely automatic high-speed rotary glue-sealing machine is said to be capable of exceptional high speed production. Bags are fed into the machine by a filling-machine operator or

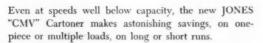


from a synchronized conveyor belt. The bag is carried through a special folding device, either single or double fold, and an adjustable glue applicator. A heating chamber, controlled by an adjustable dial-type thermostat, tacks the ad-

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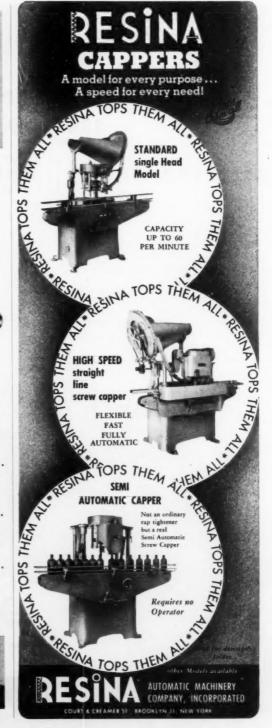
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#### Equipment and Materials

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hesive on the bag, which then passes to a long belt compression section where the adhesive is set under pressure. The machine, available in bench and floor models, is adjustable for practically any size bags by a simple crank mechanism.

#### FLEXIBLE, LIGHT-WEIGHT PROTECTIVE WRAPPINGS

for bulky, irregularly-shaped products are being manufactured by the G. B. Lewis Co., Watertown, Wis. The material is made of the same wire-and-wood woven construction as the company's shipping boxes and is said to be particularly effective in preparing heavy castings, gears, pulleys and similar



difficult items with adequate protection for shipment. It can also be used for enclosing the sides of crates when a semi-enclosed sheath is advisable. The wrapping is available in any specified width from 5 to 37 in. in rolls of 300-ft. lengths. The company says that the light-weight protective wrap saves on shipping and labor costs and is adaptable for a wide range of products.

#### FILAMENT-TAPE DISPENSERS

accommodating tape widths from  $^{1}/_{2}$  to 1 in. and up to 72 yds. in length have been introduced by Minnesota Mining & Mfg. Co., 900 Fauquier St., St. Paul, Minn. Called a "Scotch" brand filament-tape hand dispenser, the new all-metal unit is designed for use with the company's "Scotch" tapes and other hard-to-cut tapes. A thumb-operated trigger actuates the razor-sharp cutting edge. Dulled blades are changed as easily as safety-razor blades, it is said, and five replacement blades are included with each dispenser. Both dispensers and tapes are available from paper jobbers nationally.

#### NEW LABEL GUMMERS

said to apply adhesive at a carefully controlled uniform temperature to ungummed labels have been announced by the King Sales & Engineering Co., 210 First St., San Francisco. This new 9-in. King label gummer (Model F9-HTR) was designed to cover jobs where maximum adhering tenacity is required and for adhesives which require heat at the time of

application to the label surface. The glue pot is surrounded by a water jacket in which the water is heated to any desired degree, from room temperature to boiling point, through an adjustable, thermostatically controlled



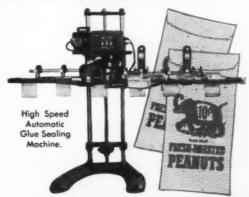
heating element. The manufacturer claims this method is the most satisfactory in heating adhesives, as the water jacket applies a uniform heat to all areas of the glue pot and prevents hot spots which would burn or break down the adhesive.

#### ADHESIVE FOR BAG-TOP LABELING

designed to fill the need for a fast-setting, hot-strength adhesive that will not squeeze out between the jaws or rollers of bag-top labeling machines is being offered by the Nashua Gummed & Coated Paper Co., Nashua, N. H. This new thermo-adhesive grade is known as Imac BT and is available on 60-lb. Krome-

making a quality product is **your** business packaging it economically is our business!

## A. L. BAZZINI CO.,INC.



## USE AMSCO PACKAGING EQUIPMENT

No ball game ar circus is complete without a bag of peanuts and the possibilities are they are Bazzini's . . . one of America's largest packagers of peanuts in the shell. Bags by the tens of thousands are sold every week and each is securely glue-sealed on an AMSCO High Speed Automatic Glue Sealing Machine.

If your product is packaged in Cellophane, Pliofilm, Polyethylene, Diafane, Maralux, Foil or Paper . . . you can do a better sealing job at lower cost with an AMSCO. If the material is heat sealable . . . if it can be glued . . . AMSCO can supply the machine to meet your requirements.

AMSCO manufactures high speed automatic rotary bag sealing machines, conveyors, foot-operated bag sealing machines and hand sealers.

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# TWO NEW AUTOMATIC TUBE FILLING MACHINES

one to take the place of the famous Colton No. 17 which for so long has been the world's most popular tube filler.

The second new machine will deliver more production and will have wider application over a greater range of tube sizes.

Pre-announcement inquiries regarding the latest developments in tube filling equipment are invited from those interested in earliest deliveries.

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WRITE FOR LITERATURE

#### Equipment and Materials

kote, 60-lb. C1S White Litho and 65-lb. Kromekote cover stock (65 lb.—20 by 28—500). Properties claimed for the new adhesive are: quick set over a wide temperature range, no squeeze-out of adhesive between jaws or rollers on bag-sealing machines, competitive cost, immediate adherence to a wide variety of films and other bag-making materials, viscous and tacky at the high temperatures required to seal multiwall bags, excellent printing qualities and good storage and handling characteristics. A bulletin showing development test results and explaining the qualities and uses of the new adhesive grade is available on request to the company.

#### A NEW OPTICAL PRODUCTION TOOL

for more accurate control of gravure printing and plate-making processes, the AO gravure microscope, has been developed by the Instrument Div., American Optical Co., Buffalo, N.Y. Combining a microscope optical system with special measuring de-

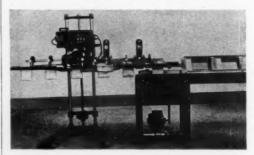
vices, the instrument is said to be able to measure the depth and width of gravure plate cells with an accuracy of plus or minus one micron. This information provides a guide to ink consistency needed for best results and may also be used as a control during etching operations. The lightweight instrument is adaptable to gravure rolls and flat plates either on or off the presses. With rolls smaller than 4 in...



an accessory stand is available. The instrument is equipped with plastic inserts to prevent damage to the plates, a built-in vertical illuminator and a magnifier for micrometer readings.

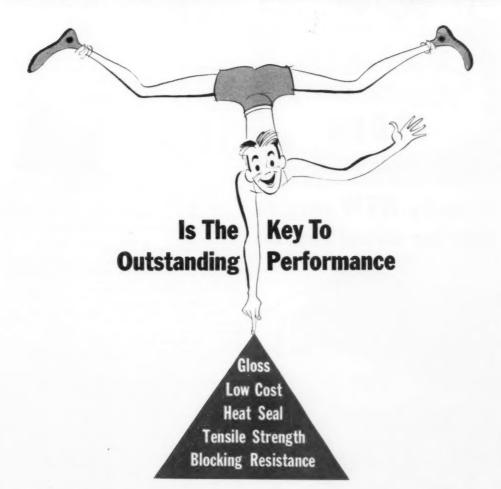
#### A NEW WRAPPING MACHINE FOR BAKERIES

which is said to incorporate new engineering principles and new, light-weight materials is designed to wrap at speeds up to 65 quality packages per minute. Known as the Super-Standard wrapper, the machine is produced by American Machine & Foundry Co., 485 Fifth Ave., New York. New features include: planetary four-point geneva, with sealed gear case and ball and



roller bearings used throughout; light-weight anti-friction infeed, with precision roller bearings, extended pitch chain and heat-treated Duraluminum pushers; swinging tuckers, actuated by a double-harmonic cam for smooth movement and heated to prevent accumulation of wax; "micradjust" paper drive, with

## BALANCE

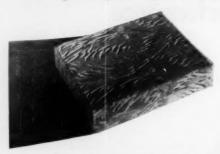


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Please direct all inquiries concerning DAY-GLO FLOCK to



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#### Equipment and Materials

a variable speed adjustment, to prevent loaf crushing by providing the correct amount of paper for any sized loaf; accurate temperature setting provided by four thermostats for the four basic heating zones; "feather-weight" back tension, incorporating an adjustable aluminum back pusher.

#### PRINTING GUMMED TAPE AS IT IS USED

is accomplished by the new Ad-O-Matic machine developed by Travers & Co., Inc., 665 Atlantic Ave., Boston, Mass. The unit, which fits any ordinary tape shooter, is easily attached by

removing just two screws from the shooter and placing the Ad-O-Matic in position. It becomes an integral part of the shooter by replacing the screws. A message 8 in. in length that is said not to smear or blot and is waterproof can be printed on tape 1 to 4 in. wide in one of six colors: red, green, blue, purple, brown or black. Copy changes may be made



in a few seconds, the company states. Advantages claimed for the machine are savings in printing and elimination of buying and stocking large quantities of printed tape.

#### A NEW TYPE OF BAND SEALER

for sealing homogeneous films, known as the Sav-Way Triplex Sara Sealer, is guaranteed by its manufacturer—Sav-Way Sara Seal, Inc., 30 Emery St., Detroit, Mich.—to seal any material that is heat sealable: Pliofilm, polyethylene, foils, vinyl, etc. The Triplex has three sets of spring-loaded (fully adjustable as to opening or gap) heating shoes, whereas the standard machine has only one set. The multiple set of heating shoes permits better sealing of gusseted bags and the adjustment of each section. The Triplex machine is said to do a good practical job of sealing at 60 to 65 ft. per minute. The Triplex machine is only sold with water-cooled shoes, as heat cannot be removed fast enough with an air-cooled shoe. It comes equipped with 110 volts, 60 cycle, AC motor. There are six 150-watt cartridge heaters in the heating shoes.

#### GLASS-REINFORCED PAPER

known as "Glas-Kraft," a non-deteriorating, waterproof, glassreinforced packaging material, is now available in unlimited quantities for general use, it has been announced by Glas-Kraft, Inc., Lonsdale, R. I. Glas-Kraft is light weight, smooth, pliable, hard to puncture and is said to be almost impossible to tear. All-directional reinforcement comes from continuous glass fibres swirled between two plies of fine-specification kraft and bonded under heat and pressure in a special waterproof all-weather laminant. It is available in three standard grades in rolls or sheets up to 96 in. in width.

#### TWO NEW WAXES

which appear to have characteristics which make them interesting in reformulating wax blends to eliminate or reduce resin additives have been introduced by Commerce Oil Corp., 445 Park Ave., New York. The waxes, designated as Micris 1000 and 3717, are said to be fully refined, have unusual toughness and can be blended to produce coatings of improved properties. They are said to be of interest to manufacturers of waxed papers and other wax users for packaging who may be faced with resin shortages if Government controls are imposed. Samples and technical data are available from the company.

OUTSTANDING FOR RESULTS AND ECONOMY

# PAPER COATINGS MADE WITH NATURAL RUBBER PLIOLITE

Excellent Resistance to WVT (water vapor transfer)

Good Crease Resistance

Good Anchorage to Various Paper Stocks

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Needs Only One Solvent

You get better moisture-resistant paper coatings with Goodyear's Pliolite NR—because it's made from the highest grade of low-protein-content natural crepe rubber, treated with reagents to form the only cyclized rubber-resin product

of its kind on the market today.

In addition to moisture proofing papers, Pliolite NR is being used successfully in a wide range of industrial applications. For assistance in its application to your problem—full details—samples, write:

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Pliolite NR starts with the finest grade of pure rubber crepe, shipped from the plantations in bales like those shown here.



## SEAL IN FRESHNESS



Pliolite NR coated papers-either glassine or krafthave the high gloss and firm, hard feel that bring added sales appeal to your product. In addition, you get all these advantages when you coat with Pliolite NR:

Excellent Water Vapor Transfer Resistance-Pliolite NR has excellent resistance to passage of water vapor, compared with other well-known coatings.

Good Crease Resistance - multiple creasing of Pliolite NR coated stocks does not affect WVTR as drastically as it does other coatings.

Good Anchorage to Various Paper Stocks-coatings will not strip, and when heat-sealed are more than strong enough so that paper will tear before seal fails.

Good Heat Seals-quickly made with a hot iron in the range of 275° to 300°F. Degree of heat seal depends on attaining this temperature range.

Uncoated glassine permits 100% evaporation of water after  $2\frac{1}{2}$  months. Plielie NR coated glassine retained 85% of water.

High Gloss, Freedom from Blocking, Good "Slip" add to appearance and handling characteristics.

Single Solvent-makes for simple manufacture, ease of solvent recovery, ready regulation of viscosity of Pliolite NR coatings.

Simple Formulation-needs no extensive modification to attain most-desired characteristics in paper coatings.

Economical-low density makes possible coatings of same thickness as other materials, using fewer pounds of coating per ream.

Excellent Stability-Pliolite NR coatings have maintained good WVTR and good heat seals over long

Check over these advantages. Compare them with the present coating material you're using. You'll see why packagers everywhere have switched to Pliolite NR.

> Standard Packaging Machinery heat seals Plinlito NR coated glassine in making popcorn bags.





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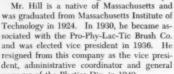
Tekwood is a patented product-U. S. Pat. No. 1997344

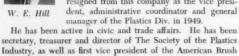


#### Plants and People

Warren E. Hill has been appointed vice president and general manager of the Shellmar Div. of Shellmar Products Corp., Mt. Vernon, Ohio. Mr. Hill will be in charge of sales and produc-

tion activities of package-material conversion plants at Mt. Vernon and Zanesville, Ohio, and South Gate, Calif., as well as of sales offices in 17 cities throughout the country.





Mr. Hill will replace Ben Verson, acting general manager of the Shellmar Div., who will resume his duties as treasurer of the company.

Plans for the construction of a second Los Angeles plant at the American Can Co. for the manufacture of food cans have been announced. It is expected that construction will be started in the very near future and that it will be in full operation by the middle of 1951. Pending completion of the new plant, American Can has leased the Terminal Island warehouse of the National Metal & Steel Corp., which will serve as a warehousing and distribution point for cans for harbor-area fish canners. The new plant, to be located on a 351/2-acre site in the Wilmington district of the city, will supply container requirements of fish canners on Terminal Island, as well as citrus and other food packers in the Southern California area.

Albert W. Stompe, general sales manager of Marathon Corp., Menasha, Wis., has resigned to join the Diamond Match Co., New York, as executive in charge of sales.

Mrs. A. Heribert, formerly of A. Heribert Co., announces the formation of Poly Perm Printing, Inc., for printing glass and plastics, including polyethylene bottles, closures, etc. Officers of the new company are: Mrs. A. Heribert, president; L. Henneberger, vice president; E. A. Geiger, treasurer; M. R. Geiger, secretary. Address of the firm is 64 W. 23rd St., New York.

Bradley Dewey, Jr., has been appointed manager of the Cryovac Division of the Dewey & Almy Chemical Co., Cambridge, Mass. Dr. Dewey will head up the sales, manufacturing and research activities of the division, which manufactures Cry-O-Rap bags and tubing. He succeeds John A. Lunn, who recently joined the Kendall Co.

The Visking Corp. announces the following changes in production and sales supervision of the plastics division in Terre Haute, Ind.: E. B. Cahn, general manager; J. Bernard,

sales manager; H. Harris, general sales supervisor. L. E. Houck, former general manager, has been appointed assistant general manager of Visking's cellulose casing division, Chicago.

B. Dewey, Jr.



E. C. Vierling has been appointed Midwest district manager for Howard Plastics, Council Bluffs, Iowa, with offices at 35 E. Wacker Dr., Chicago. Mr. Vierling will serve the northern portions of Indiana and Illinois and in upper Michigan for the firm's polyethylene products.

A new modern plant in Chicago is scheduled for opening this fall by Sherman Paper Products Corp., Newton Upper Falls, Mass. It will be equipped with a battery of corrugators to turn out volume production on A, B and C fluted material. Packing, packaging and display materials in corrugated form, also lami-

nated, die-cut and fluted items, will be available. The plant, to be located at 2245 W. Pershing Rd., will be under the management of Arthur L. Lytle.

Edward B. Conway has been elected a director of National Starch Products, Inc., New York, makers of adhesives.

John D. Morgan, former sales manager of the Dixie Wax Paper Co., Memphis, Tenn., has been appointed to the executive staff of the Shuman Equipment Co., Pittsburgh, Pa., makers

of packaging machinery and packaging converters.



D. Warren D. Delahunt

Dick Warren has recently joined Milprint, Inc., Milwaukee, Wis., as manager of the firm's Special Films Division. Mr. Warren was formerly with Goodyear and the Flex-Vac Div., Standard Cap & Seal Corp. Milprint has also announced the ap-

pointment of Dave Delahunt as manager of its Produce Division.

The United Board & Carton Corp. has appointed Edwin W. Kaler as general sales manager. Mr. Kaler's headquarters will be in Syracuse, location of the company's general offices.

United Board & Carton Corp. also announces it will install three transformers at its Thomson, N. Y., paperboard plant in order to purchase supplemental electric power, which will increase the plant's capacity for production of quality board by more than 20%, it is estimated. The installation is expected to be completed in October.

Edgar B. Flint was recently elected president of the Howard Flint Ink Co., Detroit. Robert H. Flint, who is also president of the firm's wholly owned subsidiary, the Flint Chemical Co., is now vice president. Howard Flint, who founded the inkmaking firm in 1920, has been elected board chairman.

J. H. Robertson has been appointed comptroller of Arkell & Smiths, bag manufacturers, Canajoharie, N. Y.

Jiffy Mfg. Co., Hillside, N. J., has appointed two new distributors. Schwarz Paper Co., 1400 S. Canal St., Chicago, will represent the company in the Chicago area and The Herbert A. Post Co., 548 W. 48th St., New York, will distribute the firm's protective packing materials in the New York area.

Thomas M. Royal & Co., Philadelphia, have announced the permanent closing of their Olney (Philadelphia) plant "for economic reasons," but emphasize that the company will con-

## Creative Package Design



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Protects...merchandises the product...displays well...adds color...
prompts impulse purchases...stimulates take-with sales...saves rewrapping time, labor and materials...conserves selling space...serves as storage box. Goods are sold from floor sample, delivered from stock to simplify transaction, minimize handling. To win dealer enthusiasm and consumer approval, give YOUR products package action. Consult Hinde & Dauch, Executive Offices, 5005 Decatur St., Sandusky, Ohio.

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profitable merchandising with M & D corrugated boxes.

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Use these convenient modern single service packages and you'll sell more of your product. Experience proves that consumers like the easy way Unit Service Packets give them clean, measured portions of sugar, salt, medicines, hand cleaners . . . in fact, there are Unit Service Packets for all powder or granular products. Costs are amazingly inexpensive!

Many Styles . . . Write

Ask for sample Unit Service Packets... there's one that's right for your product '.. or we'll design a special model to do the job.

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PRODUCTION COST

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Does the Job Right!

GIVES UTMOST PRODUCTION

HANDLES VARIETY OF STOCK

SKILLFULLY DESIGNED

CARRIES THE LOAD

MANY SATISFIED USERS

MANHASSET MACHINE CO.

#### Plants and People

tinue in business, concentrating production in their bag-making and roll-printing plant in Beaumont, Tex. The 500 employees of the 55-year-old Philadelphia plant received notices recently on completion of their two-week vacation, being advised that the plant had operated at a loss for the last three years. Negotiations with the United Paper Workers (CIO) for a new contract had been in progress.

Charles E. Eggerss has been elected vice president of the newly created Fibre Drum Div., Continental Can Co., Inc., New York. Mr. Eggerss was formerly the general sales manager of the Paper Converting Division.

Two appointments have been announced by the newly established Paper Container Div. of Continental. E. R. Van Meter, former sales manager of the Paper Container Section, has been named general manager and Harry A. Kirk, former regional

Left to right: C. E. Eggerss, E. R. Van Meter, H. A. Kirk.







sales manager in charge of paper-container sales in the Pacific Div., has been appointed sales manager. Mr. Van Meter will be responsible for manufacture and sale of paper cans, cups and food containers, with headquarters in Newark, N. J.

Frank I. Gill has been appointed manager of sales, central division, for Continental. Wilson B. Larkin has been promoted to general-line sales manager of the division, while Norbert M. Potts has been named Chicago district sales manager.



Duncan C. Menzies, former director of Johnson & Johnson, has been appointed to the newly created post of executive vice president and general manager of Ball Bros. Co., Inc., Muncie, Ind., glass-container manufacturers. Mr. Menzies will be in charge of all manufacturing and sales activities for both the parent company and its subsidiaries. Mr. Menzies also becomes a member of the board.

National Folding Box Co., Inc., New Haven, Conn., recently celebrated the unveiling of its new fluorescent neon sign. The giant display replaces the original sign which was erected 25 years ago to honor National's box users.

Lane-Pallas Associates, Inc., 30 Central Park South, New York 19, recently organized group of packaging consultants, is now handling package design and production problems.

Roto Bag Machinery Corp., New York, has appointed Packaging Equipment Sales Co., 887 Broadview Ave., in Toronto, as its exclusive representative in Eastern Canada.

Donald R. Earl and Richard W. Lindquist have rejoined the New York office of American Coating Mills, Div. of Owens-Illinois Glass Co., as sales representatives.

Seventy members of the aluminum foil sales division of Reynolds Metals Co., are transferring from Richmond, Va., to the plant's headquarters in Louisville, Ky., as part of the reorganization of the general sales division. Clarence Manning, vice president and member of the board of directors, is head of the foil group. J. C. Bjorkholm, in charge of foil advertigation.

#### Plants and People

tising, is also accompanying the group. Foil sales head quarters will be located at  $2500~\rm S.$  Third St., Louisville.

Lima-Hamilton Corp., New York, has announced the resignation of Roland H. Johnson, sales manager for the Hamilton-

Kruse line of can-making machinery. Mr. Johnson has joined the Standard-Knapp Division of Hartford-Empire Co., Portland, Conn., manufacturer of packaging equipment. R. T. Adams, who has been sales representative for Lima-Hamilton in Chicago, succeeds Mr. Johnson.





R. T. Adams R. H. Johnson

The Federal Tool Corp., 3600 W. Pratt Blvd., Chi-

cago, announces its recent purchase of the housewares and novelty-item molds of the Amos Plastics Co., Edinburg, Ind. Federal Tool Corp. will continue to manufacture these same items formerly made by Amos.

Carl T. Collingham of The Collingham Co. has recently acquired the controlling interest of Stevenson Paper Co., Inc., 60 E. 42nd St., New York, mill representative for tissue, waxed paper and glassine. Mr. Collingham will operate both companies from this address, and will continue as Metropolitan New York representative for United Mfg. Co., Springfield, Mass., makers of cover papers.

Willard R. Barrett, formerly vice president and general manager of the Hoosier Cardinal Corp., has been named sales manager, Plastics Division, General Electric Co., Pittsfield, Mass.

The recent merger of the Heat Seal-It Co. of Philadelphia, manufacturers of heat-sealing equipment, and the Globe Products Mfg. Co. of Los Angeles, producers of machine tools and specialties, has been announced. The new firm, known as



H. L. Reitzes

Globe Products-Heat Seal Corp., will maintain plants and offices in both cities. H. L. Reitzes, former head of the Heat Seal-It Co. and vice president of the new firm, will be in charge of sales and promotion.

Under the new arrangement, the current Heat Seal-It line of equipment will continue in production. Additional facilities now available at the Los Angeles plant will increase production potential by at least 300%, it is said, and will result in improved delivery.

The Eastern plant and offices of Heat Seal-It will be permanently maintained at 4316 Lancaster Ave., Philadelphia. Servicing of Western accounts will be handled from the plant, 3380 Robertson Blvd., Los Angeles.

F. B. Havens, former technical field service representative, Pigment Dept., Calco Chemical Div., American Cyanamid Co., was appointed Pacific Coast regional manager of the Pigment Dept., with headquarters in San Francisco.

Tom Lawson Associates, 8 W. 40th St., New York, have opened a new agency specializing in point-of-purchase displays.

Some 1,200 persons attended the recent open house at Alvey Conveyor Mfg. Co.'s new million-dollar plant in St. Louis.

J. Ralph Dixon, secretary and treasurer of Tygart Valley Glass Co., Washington, Pa., for 15 years, died suddenly on July 3. Mr. Dixon joined the Tygart Valley Glass Co. in 1916.

#### PACKAGING PERFECTION

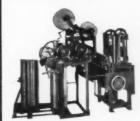
## PETERS MACHINES ARE ECONOMICAL SPEEDY ACCURATE

Why be burdened with high packaging costs? Discover now the modern and efficient method of packaging your products.

For high speed carton packaging, Peters offers its "Senior" line of packaging machinery, illustrated below.

Besides the "Senior" models, Peters has available for those with lower production requirements, a "Junior" line of very versatile packaging machines.

Send us samples of the various cartons you are now using. We will gladly send specific recommendations.



This PETERS SENIOR CAR-TON FORMING & LINING MACHINE EQUIPPED WITH AUTOMATIC CARTON & LINER FEEDING DEVICE sets up 60 or more cortons per minute, depending upon size of corton used. Machine is automatic. After cortons are set up, they drop onto a conveyor where they are carried to be filled.

This PETERS D&W TYPE SENIOR CARTON FOLD-ING & CLOSING MACHINE closes 60 or more cartons per minute. depending upon size of carton used. Fully automatic, no operator required. The packages enter the machine on conveyor belt as open, filled cartons and leave the machine completely closed, ready to be packed for shipment or to be conveyed into a wrapping machine.



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Eliminates flying dust!
Fills fast!

Controlled-Vacuum
Filling Machine
is completely
dustless



- for free flowing and non-free flowing powders
- based on the efficient controlled vacuum filling method
- fills bottles, jars, canisters, cans, & plastic containers
- does not lump or cake powder during filling
- positive control valve prevents dribbling
- dribbling

   large nozzle openings for rapid
- cleans completely in a few minutes...changes over fast
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- fully self-contained . . . just plug in for operation
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#### For Your Information



Wallace E. Coughlin, president of Packaging Machinery Mfrs. Institute, announces the appointment of an Industry Mobilization Planning Committee. The Steering Committee will be headed by George A. Mohlman, chairman of the board of Package Machinery Co., East Longmeadow, Mass., and George W. von Hofe, president of New Jersey Machine Corp., Hoboken, N.J. Plans for industry mobilization will be presented to the 18th annual meeting of the Institute to be held Sept. 23–26 at the Homestead, Hot Springs, Va.

The Institute also announces the establishment of a Packaging Machinery Information Service at its offices at 342 Madison Ave., New York.

According to the first report issued by the Export Committee, approximately 50% of the member companies of the Institute export their equipment outside the United States and Canada. The committee, which was established to give export assistance to PMMI members is headed by John M. Chalfant, export manager of Package Machinery Co., East Longmeadow, Mass.

A "Military Packaging Review" will be held in conjunction with the Fifth Annual Industrial Packaging & Materials Handling Exposition in place of the previously announced "Government Packaging Review," according to R. F. Weber, board chairman of SIPMHE. The program change is mainly a result of the seriousness of the world situation. In order to accommodate the expected increase in attendance, the review will be held in Convention Hall, Philadelphia, at 2 p.m. on Tuesday, Oct. 10.

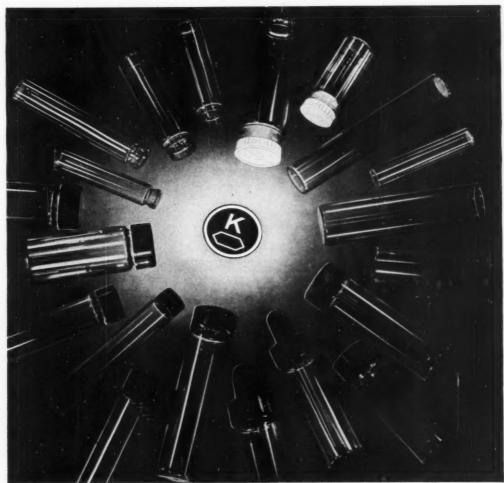
The second Plant Maintenance Show and Conference will be held next year in the Auditorium, Cleveland, Ohio, Jan. 15-18, according to Clapp & Poliak, Inc., the exposition management. Present indications are that it will be two to three times the size of the initial show held early this year, which drew industrial executives from 35 states and many foreign countries. Already 120 companies have leased booth space, which exceeds by 61% the total area used for the first show. The conference will be under the chairmanship of L. C. Morrow, consulting editor, Factory Management & Maintenance. Advance registration cards and hotel information may be obtained from Clapp & Poliak, Inc., 341 Madison Ave., New York 17.

The Manufacturing Chemists' Assn., Inc., and the Plastic Materials Mfrs. Assn., Inc., have voted unanimously to consolidate and operate in the future under the name of Manufacturing Chemists' Assn., Inc. Dr. D. S. Frederick, former president of P.M.M.A., announced that plans are now being developed for all chemical manufacturers interested in plastic materials to cooperate as an integral group within the newly formed association.

The committees for directing the activities concerned specifically with plastic

#### What's doing

- Sept. 11–23–National Graphic
  Arts Exposition, International Amphitheatre, Chicago.
- Sept. 16–21—National Wholesale Druggists' Assn., annual meeting, Waldorf-Astoria, New York.
- Sept. 21–23–U.S. Wholesale Grocers Assn., fall meeting, Greenbrier, White Sulphur Springs, W. Va.
- Sept. 21-23-American Meat Institute, annual meeting, Palmer House, Chicago.
- Sept. 23–26–Packaging Machinery Mfrs. Institute, 18th annual convention, Homestead, Hot Springs, Va.
- Sept. 25-27-Assn. of National Advertisers, annual meeting, Drake Hotel, Chicago.
- Oct. 10-12-Society of Industrial Packaging & Materials Handling Engineers, fifth annual exposition, Convention Hall, Philadelphia.
- Oct. 15-19-National Assn. of Retail Druggists, annual meeting, Municipal Auditorium, Long Beach, Calif.
- Oct. 18-20-The Society of the Plastics Industry, annual national conference, New Ocean House, Swampscott,
- Oct. 23-25-Packaging Institute, 12th Annual Forum, Hotel Commodore, New York.
- Oct. 23–25–Federal Wholesale Druggists' Assn., annual meeting, Greenbrier. White Sulphur Springs, W. Va.



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#### For Your Information

(Continued)

materials have been appointed by William M. Rand of Monsanto Chemical Co., chairman of the board of M.C.A. F. H. Carman, former secretary and general manager of P.M.M.A., has joined the Washington staff of M.C.A. and will continue active in the plastic program.

Charles F. Hubbs & Co., distributors and convertors of wrapping and display papers, have released its catalog of display materials for the coming fall and Christmas seasons. The catalogue and the current wholesale price lists are available from the company, 389 Lafayette St., New York 3.

Paper Affiliates Dept., Nalco, Inc., has published a resumé of its experience and manufacturing facilities relative to the potentialities which it has to offer which would be useful to the mobilization effort. It is especially directed to those in research, development and procurement. Copies are available on request to the company, 203 E. 18th St., New York 3.

Bulletin No. 5003 describes the new Model 140 standard abrasion testing set recently introduced by the Taber Instrument Corp. The set includes a variety of wheels, brushes, holders, etc. Copies of the bulletin may be had on request to the company, 119 Goundry St., North Tonawanda, N.Y.

Employees of the U. S. Forest Products Laboratory, on the event of its 40th anniversary, have published a factual, non-technical booklet entitled, "Toward Wiser Use of Wood." Request copies from the Employees' Assn., Forest Products Laboratory, Madison, Wis.

The Champion Paper and Fibre Co., Hamilton, Ohio, has added a line of colored papers to its regular cast-coated Kromekote. The new line, called Kromekote Colorcast, has an entirely different coating and features high-gloss finish, smooth surface, freedom from mottle, lightfastness and rub-resistance. It comes

Volume 23 Index of Modern Packaging is available. Subscribers may obtain the index, covering the period from September, 1949, to September, 1950, free of charge by writing to the Editorial Department, Modern Packaging, 122 E. 42nd St., New York 17.

#### Peter Piper Picks a Jar of Pickled Peppers—



the jar with Gemtone Inks on the label. Because with Gemtone Inks colors

sparkle, highlights are bright and halftone dots print sharp, clear. Most people are like Peter—they naturally reach out and grab for Gemtone's sparkle. Brilliant Gemtone Inks stand out and sing a product's praises. Smart package printers know that Gemtone Inks produce quality work with a premium finish—dry fazl without heat on sheet-fed presses.



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#### Free Booklet on Color for Package Printing

Color problems in package printing are easy to solve if you know the an-



swers in advance. That's why IPI prepared the booklet "Color for Package Printing". It has 14 color sketches, including the full hue circuit. Color control and measurement are fully explained. And it also tells about new inks and processes, how to select printing inks to meet specifications. Copies are free. Ask your IPI salesman or write us at 67 West 44th St., N. Y. 18.

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#### NEED ODOR-FREE FOOD WRAPS? JOIN THE VAPOSET SET

Need inks that are odor-free, set instantly, have excellent rub resistance and heat-sealing qualities? More package printers than ever are getting these advantages with Vaposet inks.

Odor-free inks are an advantage in all package printing, but for food packages they are a must. Vaposet inks are completely free from objectionable odors, assure consumer acceptance of packaged foods.

Vaposet inks set instantly in moisture. With them you can even print on warm, moist corrugated board. No waiting for board or inks to dry. Vaposet inks permit stock fabrication immediately after printing in one continuous operation.

And here's why nearly every major breadwrapper printer in the country is now using Vaposet inks: the stock can be put through waxing machines two hours after printing, heat sealing qualities are excellent.



Vaposet inks set in moisture, too, and they dry instantly.

You'll find that Vaposet inks print clean—and the improved rub-resistance helps packages stay clean, after fabrication, filling and handling all along the line. In food-package printing—bet on Vaposet.

## IPI YELLOW SPECIFIED WORLD AROUND FOR EBERHARD FABER PENCIL PACKAGES



Ink color control for pencils? Sure. When you look for Eberhard Faber pencils in the corner store or in a Turkish bazaar, how do you recognize the package? By the yellow, of course. It's IPI Yellow, 9YR 8.0/13, specified the world around.

Here's what F. W. Strickler, Merchandise Manager for the Eberhard Faber Pencil Co. wrote us in an unsolicited letter: "Our standard Yellow, used in our packaging and known the world over, almost as an Eberhard Faber trademark, now utilizes your inks on all printing jobs."

With over 100 years experience in designing and printing countless packages, Eberhard Faber appreciates the importance of color control for package uniformity — especially when packages are printed by

several processes. And it is doubly important when the package color is a major factor in consumer recognition.

IPI inks and IPI color service contribute to color uniformity on thousands of leading packages. Some of these are brand families printed in the same color by 4 different processes on various surfaces. Yet colors are kept uniform within narrow limits.

With the Recording Spectrophotometer, IPI plots permanent curves that can't fade or look different under different lights. Then we set up practical standards with visual limits that printers can easily follow. Colors printed any time can be checked with these standards.

Ask your IPI representative today about color control service for packagers.

#### 100% PIGMENTED ANILOX FOR OPACITY WHERE IT'S NEEDED ON CELLOPHANE

Anilox inks for aniline and Anilox presses work well on highly plasticized grades of cellophane and other transparent materials, including polyethylene. Anilox inks have the color strength needed to produce opaque results — they're 100% pigmented. Lightfastness is tops.

Anilox inks, used with the famous IPI Anilox system of ink distribution, print sharp and uniform, look sharp on the package—need no slip sheeting. Anilox inks offer wide color choice for practically all types of stock.

Want a copy of what printers say is the best report on aniline printing? "Aniline Printing" is free from IPI, 67 W. 44th St., New York 18.

#### COLOR PICKER POPULAR WITH PACKAGING PEOPLE

Printers, users, designers of packages everywhere are enthusiastic about IPI's new Color Picker for Packages. Handy cards and accent circles give clear idea how colors on finished package will look. Complete instructions coordinate colors with each other and with the IPI Color Guide for Boxboard. Both these valuable tools are free from IPI.





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#### For Your Information

(Continued

in seven brilliant colors. Regular printing inks can be used, although best results are obtained with gloss and cellophane-type inks; metallic inks may also be used. The sheet can be hot die embossed and non-warping glues are suggested. The coated paper is especially suited for box wrapping and can be handled on regular box-making equipment. At present, Colorcast is only available in 26- and 30-in. rolls containing three reams of 500 sheets.

Industrial Truck Div., Clark Equipment Co., announces that three new 16 mm. sound films showing handling of beverages, paper rolls and groceries are available upon loan to interested companies: "Bottling Without Bottlenecks," "Handling Rolls With The Bartel Device," "Handling Groceries The 'Certified' Way." Requests for use of the films should be addressed to the company's Industrial Truck Div., Battle Creek, Mich.

Nelson T. Hampson, treasurer of the Lowe Paper Co., Ridgefield, N.J., has been elected vice president of the New York City Control of the Controllers Institute. Ralph B. Knott, vice president in charge of finance for Fibreboard Products, Inc., San Francisco, has been elected treasurer of the San Francisco Control. Claiborne H. Johnson, controller of Fleming & Sons, Inc., was reelected secretary-treasurer of Dallas Control and C. M. Blumenschein, controller of the Container Corp. of America, has been renamed a director of the Chicago Controllers Institute.

Office of Technical Services of the U.S. Department of Commerce has announced two bibliographies of industrial interest: a bibliography on container coatings (Order PB 100 864, \$1.25) and "Bibliography on the Solubility of Argon, Carbon Dioxide, Helium and Nitrogen in Organic Liquids" (Order PB 100 583, \$.20). Orders for the bibliographies should be addressed to OTS, Washington 25, D. C., and checks or money orders should be payable to the Treasurer of the United States.

Of interest to users of corrugated cartons is a new catalog folder now being offered by Bostitch, Inc. This informative brochure, designated Ptg. 229B, describes and illustrates Bostitch wirestitching and stapling machines now available. Free copies of this folder may be obtained by writing Bostitch, Inc., 771 Mechanic St., Westerly, R. I.



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SEPTEMBER 1950

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#### U.S. Patents Digest

Edited by H. A. Levey



This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U.S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Method and Apparatus for Forming Paper Bags, S. G. Yount, Los Augeles, Calif. U. S. 2,511,031, June 13. A method of forming pleated tubes for paper bags of large size from two continuous rolls of paper substantially equal in width comprising: continuously advancing a strip of paper from one roll, continuously infolding a longitudinally extending section of uniform width adjacent one edge of strip.

Means for Guiding Objects Through Dispensing Machines, L. C. Case (to Case Co., a corporation of Nevada). U. S. 2,511,099, June 13. A dispensing device for cylindrical objects comprising: a casing having right and left side walls and a discharge opening, a shaft rotatable within the casing, spiders on shaft shaped to guide object to said opening.

Hopper Closure for Filling Machine with External Bag Clamps, Which Lifts and Spreads Bags Upon Being Opened, L. H. Bowes (to Morton Salt Co., Chicago, III). U. S. 2,511,241, June 13. Bag-filling apparatus, including a pair of internal clamping members for insertion interiorly of mouth portion of bag.

Handle for Bottle-Carrying Containers, E. L. Arneson (to Morris Paper Mills, Chicago, Ill.). U. S. 2,511,317, June 13. A handle for a bottle carrier or like container comprising a length of flexible stock shaped to provide a longitudinally extending gripping portion and a pair of generally coplanar legs offset downwardly from gripping portion, each leg terminating in a U-shaped upwardly opening bight engageable with carrier.

Multiple Filling and Sealing Device, F. Brodsky, New York, N. Y. U. S. 2,511,324, June 13. In a scaling device for a plurality of containers with open tops and arranged in a row in a spaced-apart manner, a chain of scaling disks above the top and at one side of said row of containers arranged in a similar row and spaced apart in a similar manner; supports having a recessed portion through which disks may drop over the tops of the respective containers, means to press said disks on said containers.

Tube-Feeding Machine, N. D. Abbey, Toledo, Ohio. U. S. 2,511,450, June 13. In a machine of this class employing a stationary tube-severing device, tube-clamping means, mechanism for recurrently advancing a predetermined length of tubing to said tube-severing device, including a carriage mounted for horizontal reciprocable movement toward and away from tube-severing device.

New-Type Drum Package, E. S. Schneider (to Rohm & Haas Co., Philadelphia, Pa.). U. S. 2,511,481, June 13. A container adapted for shipment of large bodies of liquid comprising a body

of fibreboard or like material having rigid members surrounding upper and lower ends thereof, a rigid bottom secured to lower end of body, a bag of flexible material impervious to and capable of retaining liquid, said bag being of substantially the same dimensions of the interior of body and arranged therewithin.

Self-Locking Carton, A. A. Abrams, St. Louis, Mo. U. S. 2,511,523, June 13. In a foldable box including pairs of upstanding opposed side walls, a top wall foldable across the opening defined by side walls and means for releasably interlocking top wall to one of side walls and comprising a tongue extending downwardly from top wall to overlie the exterior of side wall and having a pair of laterally projecting side tabs and bottom tab, all foldable rearwardly of tongue.

Ventilated Shipping Container, H. A. Simms (to The Patent & Licensing Corp., New York, N. Y.). U. S. 2,511,-550, June 13. A chick box of foldable sheet material comprising a body having a rectangular bottom, side and end walls flexibly connected, end walls having slots near each end adjacent the upper edge thereof, side walls having integral corner flaps at each end thereof.

Label-Picking Mechanism, R. A. Clark, Jr. (to Glemmore Distilleries Co., Inc., Louisville, Ky.). U. S. 2511,566, June 13. A label-picker mechanism for handling a large and a small label simultaneously, comprising a main pair and an auxiliary pair of conjointly movable pickers mounted on a common shaft, means for oscillating shaft and a single means for moving the companion members of each pair to effect substantial contact and separation of the juxtaposed vertical faces of one pair of pickers in advance of the other pair during oscillating movements thereof.

Article-Holding Insert for Containers, S. H. Davis, L. F. Middlesworth and A. L. Mistein (to S. H. Davis Paper Box Co., Toledo, Ohio). U. S. 2,511.-569, June 13. A container liner formed of stiff material and comprising a bottom and a buffer section at each of opposite edges thereof, one buffer section having an inner wall facing the other and inclined outwardly from the bottom.

Tobacco Can, J. Henchert (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,511,634, June 13. A tobacco can comprising a body having flat sides and rounded edges, body wall at upper end being slit at spaced intervals and the portion between the slits being bent outwardly, thence downwardly and thence rolled outwardly and upwardly to provide a pintle carrying hinge.

Multiple-Trip Container, D. G. Williams (to Trojan Powder Co., Allentown, Pa.). U. S. 2,511,958, June 20. In a multiple-

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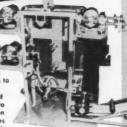
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#### U.S. Patents Digest

(Continued

trip container for explosives, a rectangular receptacle having a bottom, two sides and two ends, with a rabbeted portion forming a recess extending entirely around the outer periphery of the top thereof and having holes extending through the rabbeted portion on opposite sides of the receptacle, a cover for the receptacle comprising a top portion to rest upon the receptacle and extending beyond the rabbeted portion flush with the major part of the receptacle to form with the rabbeted portion a groove, a bottom portion fitting four inner surfaces of receptacle.

Packaging Machine for Candy, Cookies and the Like, O. Sandberg (to Lynch Package Machinery Corp., Toledo, Ohio). U. S. 2,512,074, June 20. In a packaging machine, the combination of a moving conveyor having a plurality of open-ended, U-shaped, article-receiving pockets, a source of supply of continuous relatively rigid strip material and a feed mechanism for feeding strip material to pockets in form of predetermined folded lengths.

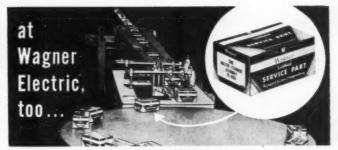
Can- and Drum-Filling Machine, G. Dawson (to Paragon Oil Co., Inc., Brooklyn, N. Y.). U. S. 2,512,199, June 20. A can- and drum-filling machine consisting of a tubular standard and means for rotating the same, a platform embracing and moving with standard, a plurality of metering valves carried by the platform, a manifold provided by the standard and communicating with the metering valves, manifold being adapted for communication with the fluid supply, and a flexible conduit leading from metering valve, each conduit having a discharge means.

Method of Forming Collapsible Containers, W. A. Ringler (to The Gardner Board & Carton Co., a corporation of Ohio). U. S. 2,512,382, June 20. The method of setting up a carton from a flat blank having a bottom panel, side-wall panels connecting the side-wall panels and lock flaps hinged to the top edges of side-wall panels.

Container for Solid and Liquid Food Products, W. A. Ringler (to The Gardner Board & Carton Co., a corporation of Ohio). U. S. 2,512,383, June 20. A boxboard container capable of being sealed by means of thermoplastic adhesive and having a plurality of enclosing walls in articulation with each other, extensions on these walls also in articulation with each other, said extensions being scored to provide a fin portion.

Easy-Packing Container, J. R. Belsinger (to Belsinger, Inc., Atlanta, Ga.). U. S. 2,512,539, June 20. A shipping container comprising a body including upper and lower open-ended box-like sections having their free edges disposed in horizontal abutted relation when the container is closed, the combined inside depth of the sections of the closed container being at least 40 in. and the inside depth of the lower section being not to exceed the normal reach of a packer.

Device for Applying Tape to Contiguous Faces of Rectangular Objects, G. Long,



#### the Gottscho MARKOCODER

#### makes carton imprinting a synchronized in-line operation

Wagner Electric uses the MARKOCODER to save time and improve package marking. Automatically this production-line printing machine takes loaded cartons from a cartoner . . . prints clean, sharp, in-register impressions on their end panels . . . discharges them to the packing station. Also, the MARKOCODER adjusts easily to handle packages of different sizes . . . permits quick changeover to new copy.



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#### U.S. Patents Digest

(to General Mills, Inc., a corporation of Delaware). U. S. 2,512,579, June 20. A taping device comprising means for propelling an object to be taped along a given path, an arm normally extending into path and pivotally and yieldably mounted at the side of path, the arm carrying two rollers near its outer end.

Container, J. G. Bell (to Morris Paper Mills, Chicago, Ill.). U. S. 2,512,602, June 27. A container having a top, bottom and lateral walls, lateral walls comprising a continuous strip of material having the upper edge rolled outwardly and downwardly and the lower edge rolled inwardly and upwardly, said strip being of such a length that when wrapped upon itself an inner and outer wall is formed.

Container-Treating Machine, S. S. Jacobs (to American Can Co., New York, N. Y.). U. S. 2512,651, June 27. In a treating machine for simultaneously applying different coating materials to interior and exterior surfaces of a container having an opening in a wall thereof, a carrier for advancing containers along a path of travel, a drain nozzle movably mounted on carrier and insertable within the container opening and rotable spray nozzle movable within drain nozzle for insertion into container for spraying coating material on interior of container.

Shipping Case, P. Baar and A. J. Boeve, Sr., Holland, Mich. U. S. 2,512,819, June 27. An open-topped box comprising a pair of vertically disposed spaced parallel side walls, a pair of vertically disposed end walls extending between side walls and secured thereto and having a horizontally disposed cover supported by side walls and end walls.

Glue Control for Bag-Sealing Machines, H. Anderson (to General Mills, Inc., a corporation of Delaware). U. S. 2,512,884, June 27. A glue-feeding control for a bag-closing and -sealing machine comprising a glue-applying device, a valve-controlled air supply connected to glue-applying device to cause the flow of glue with air pressure.

Cellular Carton, W. H. Allen (to United Board & Carton Corp., New York, N. Y.). U. S. 2,512,991, June 27. A cellular carton comprising a continuous bottom and lower central partition-forming portion comprising a pair of lower-partition sections disposed face to face and hinged together at their upper edges, one of lower-partition sections having an attachment extension thereon cut out of the other of said lower-partition sections at point of hinging.

Collapsible Box, W. J. Buerger (to The Dayton Folding Box Co., Harrison, Ohio). U. S. 2,513,079, June 27. A box blank for forming a collapsible carton comprising: a unitary blank having delineated thereon a pair of side walls and a pair of end walls alternately arranged and adapted to form a rectangular sleeve in folded and attached condition.

Vacuum Head for Filling Containers with Powders, C. F. Carter, Danville,



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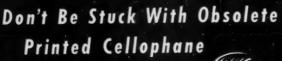


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THE BAG

WRITE FOR LIST OF CONVERTERS AND RAW MATERIAL SOURCES

PYROXYLIN PRODUCTS, INC.

PAOLI, PENNA.

WICHITA, KANSAS

#### U.S. Patents Digest

(Continued)

Ill. U. S. 2,513,143, June 27. A filling head for vacuum-type machines adapted to fill containers with powdered solids which comprises means for attaching head to a hopper, a body having a central opening for passing powder from hopper into container when latter is in filling position.

Container Vacuumizing and Closing Machine, H. B. Peterson and R. E. Renard (to American Can Co. New York, N. Y.). U. S. 2,513,357, July 4. In a machine for vacuumizing and sealing containers, the combination of a sealing chamber, container sealing head with said chamber, support within chamber for holding container and superimposed cover in sealing position in head and an actuating stem in head for holding cover on container and ejecting sealed container from head

Vegetable-Packing Machinery, W. Dodge, Salinas, Calif. U. S. 2,513,457, July 4. Means for supporting a wrapper sheet in position about an article therein with ends of wrapper extending upwardly and a plurality of radially positioned jaws adapted to be moved toward and away from each other to force together wrapper ends

Sealed Receptacle, H. Lombard, Washington, D. C. U. S. 2,513,575, July 4. A receptacle comprising front and back portions of sheet material defining a pocket, commodity contained in pocket, at ab defined by a fold on front portion extending outwardly thereof and having a free end; free ends of tab may be pulled apart for opening sealed pocket.

Tube and Bottle Cap, H. K. Jenkins, Andover, Mass. U. S. 2,513,489, July 4. In a bottle, an enlargement formed on neck of bottle adjacent to mouth, enlargement being at an oblique angle with respect to neck of bottle and having an unobstructed passageway disposed in straight line axially therethrough to mouth of bottle.

Taping Means for Carton Folders, R. R. Hundley (to Old Dominion Box Co., Lynchburg, Va.). U. S. 2,513,647, July 4. In a machine for folding edges of box blanks over upon themselves toward each other, to where side edges of blank after folding are in close proximity to each other, and disposed on top of main body portion of blank, said machine having pressure-applying means for applying pressure to proximate edges of folded portions of blank and tape-feeding means driven by the machine for feeding adhesive tape and applying it over proximate edges of folded blank.

Adjustable Container, C. W. Turbyfill, Marshall, Tex. U. S. 2,513,693 July 4. A shipping box comprising a body including bottom, side members secured to the bottom, slidably and medially overlapping end sections joined to ends of side members, each side and its joined end sections being movable from a position wherein sides are substantially vertical to a position wherein sides are inclined



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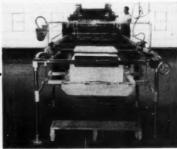
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## U.S. Patents Digest

Continued

outwardly, frame members comprising a U-shaped rod secured to upper edges of each side and its joined sections.

Carton, W. J. Tyrseck (to Robertson Paper Box Co., Inc., Montville, Conn.). U. S. 2513,902, July 4. A collapsible shockproof box, rectangular in cross section, formed from a folded single blank comprising a series of 10 successive panels integrally connected along parallel fold lines to form inner and outer sleeves, outer sleeve comprising five panels adjacent one end with first panel glued to the outside face of fifth panel, inner sleeve comprising five panels adjacent other end, tenth panel glued to inside face of sixth panel.

Frame with Hold-Down Clips and Release Pins for Placing Elastic Bands Around Container Covers, H. A. Doulittle, East Haven, Conn. U. S. 2,514,038, July 4. A device for affixing covers to boxes comprising: a rectangular frame, a spring-lip attached to each side of frame and extending upwardly and inwardly inside thereof and a spring pin mounted at each corner of frame and adapted to be depressed below upper surface of frame and adapted to hold a rubber band.

Waterproof Flexible Folding Container, K. R. Karlson (to Reynolds Metals Co., Richmond, Va.). U. S. 2,514,073, July 4. A rectangular container constructed from a unitary unnotched sheet of flexible material, said unitary sheet being cut oblong in form and having two primary folding lines running crosswise and in oblique direction from one to the other of its long edges and intersecting each other near the center.

Receptacle Closure, J. B. Eisen (to Ferdinand Gutmann & Co., Brooklyn, N. Y.). U. S. 2,514,124, July 4. A closure for receptacles, the contents of which are subject to the evolution of pressure during storage, said closure being of the type comprising a cap having a relatively thicker cushion liner of slightly compressible material and a relatively thinner flexible facing liner substantially impervious to the receptacle contents.

Wrapping and Twisting Machine, H. Rumsey, Jr., Rochester, N. Y. U. S. 2,514,293, July 4. An apparatus for twisting protruding ends of a wrapper or casing of an article, the combination of an endless belt for engaging and rotating the articles.

Cushioned Packing Box, S. Scurich, Jr., Watsonville, Calif. U. S. 2,514,295, July 4. A packing box comprising an elongated integral rectangular sheet of bendable material of substantial thickness having transverse score lines extending entirely across said sheet dividing it into a plurality of panels, opposite end panels of the sheet each being infolded and overlying the next adjoining panel, relatively overlying panels of each end of the sheet being bent substantially perpendicular to the panel therebetween, whereby there is provided a bottom panel and perpendicular opposed sidewall panels, which latter have double thickness of panel material.



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### Acetate, flowers

(Article continued from page 97) less than one-half of Christmas sales. Retail buyers, however, spurred by the remarkable success of Violets in the Snow at Christmas, bought one to three times as many of the Blue Hyacinths packaged garments.

Blue Hyacinths was planned as a double-purpose promotion, seeking, first, to win a good share of Mother's Day lingerie sales and, second, to carry through the rest of the spring season for trousseau, shower and other gifts. For that reason a specific Mother's Day motif was omitted from the box-cover design and the delicate hyacinth-and-butterfly theme selected as having a general springtime appeal. The



DUMMY BOX was sent out in advance to store buyers to announce new Blue Hyacinths.

stores welcomed this opportunity to stock fresh, attractively packaged, easy-to-inventory merchandise in quantities to care for all spring needs.

Whereas only one store in a city was offered Violets in the Snow, as many as six stores in some cities participated in the Blue Hyacinths promotion. No attempt was made to restrict distribution because of the more general and longer-lasting nature of the dual-purpose promotion.

The two promotions together have established that both men and women shoppers recognize the "extra" of reuse value in a non-commercialized container of this type. All of the stores participating are reported to be happy with the way this packaging idea has worked out and to be looking forward to an equally exciting idea from Carter's for Christmas.

CREDITS: Acetate box top, Shaw-Randall Co., Inc., Pawtucket, R. I., using "Lumarith" acetate by Celanese Corp. of America, New York.



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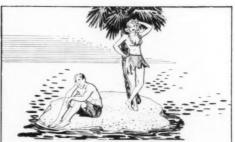
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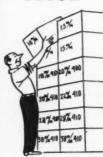
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## QM problems

(Article continued from page 140) trating their design or development have been supplied to the Container Laboratories.

The problem of furnishing the Quartermaster Corps with cans for prepared mustard and salad dressing has been submitted to the Can Mfrs. Institute for study and recommendations. To date no conclusions or recommendations have been received.

#### Rough handling, cyclic exposure

The development of test procedures for rough handling and cyclic exposure has been referred to industry. Contacts have been made with the Davison Chemical Co., Shellmar Products Corp., Reynolds Metals Co. and other producers and manufacturers of water-vaporproof, flexible barrier materials.

It is to be noted that specification JAN-P-131 covers the test requirements for rough handling and cyclic exposure for performance standards of the barrier material. Specification JAN-P-116 covers the rough-handling and cyclic-exposure test for completed packs, including the 131 barrier materials and exterior shipping containers. Since the two tests in the respective specifications differ methods of rough handling as well as temperatures and relative humidities, it is proposed to establish a roughhandling and cyclic-exposure test which will be comparable and usable in both specifications.

Certain corrosive chemicals and high-strength vinegar, as well as stabilized cream, must of necessity be packed in glass bottles. Containers must be designed to eliminate or minimize as much as possible (a) breakage of glass bottles and (b) seepage to other cargo if glass bottles are broken.

Figs. 17 and 18 show examples of types of packs which have been used or are currently being used by the Quartermaster Corps. These packs consist of a fibreboard container provided with inner liner and individual cell spacers in accordance with the requirements of Consolidated Freight Classification rules. This type of pack is employed for standard commercial shipments within the zone of the interior, but insufficient protection to bottles within the container leads to breakage.

Fig. 19 shows a pack consisting of a fibreboard container provided with



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full-height, slotted partitions separating each bottle. The fibreboard container is overpacked in a nailed wood crate to afford greater resistance to shock and impact. Failure still occurs, due to insufficient cushioning between bottles.

Fig. 20 shows a pack consisting of two fibreboard containers provided with full-height, slotted partitions separating each bottle, with the two fibreboard cartons overpacked in a nailed wood box. Failure still occurs due to insufficient cushioning between bottles, even though an intermediate pack was designed to contain half of the standard pack. The standard pack is 24 pints to a container; two intermediate containers were used, each containing 12 pints. Insufficient protection is given to the bottles. The contents seep and contaminate other cargo.

Fig. 21 shows a pack consisting of a fibreboard container provided with inner liner and individual cell spacers. The container is wrapped with waterproof barrier material and overpacked in a wooden shipping container. The wooden shipping container is approximately 4 in. larger than the fibreboard container in each direction. This space is filled with excelsior pads or other equivalent cushioning material providing a 2-in. cushion to all faces of the fibreboard container. This pack provides less breakage, but at high cost and excessive cube.

Fig. 22 shows each bottle slipped into a sleeve fabricated from cellulose-wadding cushioning material. The wooden shipping container is lined with a minimum of 2 in. of the same cushioning material. This pack also provides less breakage and seepage, but is expensive and space consuming.

As the result of coordinated effort of the Glass Mfrs. Institute and the Quartermaster Food and Container Institute we are now in progress of designing a container to determine if referenced deficiencies can be eliminated or lessened percentagewise.

Fig. 23 shows the development of a new method of pack. Each bottle is slipped into a prefabricated cellulose-wadding pocket sleeve of '/\*in. thickness. The sleeve is folded over the top of the bottle and sealed. Each individually cushioned bottle is placed in its compartment formed by individual cell spacers. The container and inner packing are fabricated of waterresistant material. This particular development is an attempt to decrease

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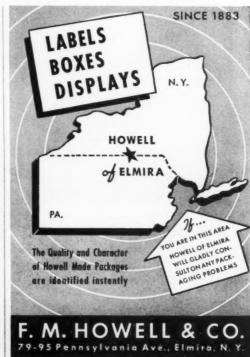
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NOVELTY CO. 61 East 8th Street New York, N. Y. GRamercy 3-2686



the over-all cube and still provide adequate protection between bottles. The pads illustrated in Fig. 17 (standard commercial pack) are approximately 1.3 cu. ft. The pack illustrated in Fig. 21 (fibreboard container overpacked in nailed wood container with 2-in. cushioning material over all faces) is approximately 2.6 cu. ft.

The proposed method will decrease weight and establish a cube somewhere between the low and high levels. The pack, if found adequate after thorough testing, will be the guide post for future developments of glass-container packs for use by the Armed Forces.

Upon comparing the different types of containers illustrated, it is found that a container which will overcome the following deficiencies has not yet been developed:

- (a) Maximum product protection
- (b) Elimination of seepage if bottles are broken
- (c) Lower cost of container in relationship to cost of product
- (d) Reduction in weight and cube The Quartermaster Food and Container Institute proposes that industry assist in the development of containers to overcome these deficiencies.

#### Push-button-

(Article continued from page 125) special orders in lots from 500, 250, 100 or less. Such small orders were previously turned away as unprofitable. Thus a new field of unknown depth, made up of small and special uses, can be penetrated.

Actually, an order from a container company was among the first dozen received after the machine was announced last April.

Wherever the machine may be used, an undiminished market for board stock still exists. At least one container manufacturer has stated that it would make no difference in his profit sheet whether he supplies his customers with finished boxes or with sheet stock.

With the nation facing a possible shortage of container board under the new military program, the machine may contribute importantly to economical use of existing supplies.

CREDITS: "Rite-Size" box machine developed and supplied by Jacob Industries Sales Corp., New York; built by Farrel-Birmingham Co., Inc., Buffalo, N. Y.



THE MERGER OF THE

## HEAT SEAL-IT CO.

WITH THE

## GLOBE PRODUCTS MFG. CO.

to form the

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To meet the increasing demands of a rapidly expanding market for our line of more efficient heat sealing equipment, the Heat Seal-It Company takes pleasure in announcing the formation of Globe Products - Heat Seal Corporation. The entire Heat Seal-It line, from a hand iron to heavy duty automatic equipment and bag making machines, will be continued in keeping with the high standards established in 1932 when the Heat Seal-It Company introduced the first heat sealing machine ever manufactured. Through this merger, facilities for the production of this equipment and several new developments soon to be announced will be more than tripled. To provide maximum service for Eastern users of Heat Seal-It machines, the Philadelphia plant and offices located at 4316 Lancaster Avenue will continue in operation, H. L. Reitzes, Vice President in charge of sales, and former head of the Heat Seal-It Company, will divide his time between the two plants. All inquiries regarding routine or special heat sealing problems will receive immediate attention without obligation.

# **HEAT SEAL-IT MACHINES**

DIVISION OF

GLOBE PRODUCTS • HEAT SEAL CORP.

NEW YORK CITY 50 Church St.



PHILADELPHIA 4316 Lancaster Ave.

Gen. Offices: 3380 ROBERTSON BLVD., LOS ANGELES 34

# Imagine...

## 3000 CORRUGATED CARTONS

# IN UNLIMITED SIZES

made by One

Unskilled
Operator
in a

Single

...size changes take less than a minute Using the Rite-Size Box Machine, one unskilled operator working alone easily produces three thousand corrugated cartons of various sizes a day!

#### **EASY TO USE**

He inserts flat corrugated board at one end of the machine and it comes out blanked to size, slit and scored . . . all automatically. A simple taping operation and the box is ready for use.

#### **FAST CHANGEOVER**

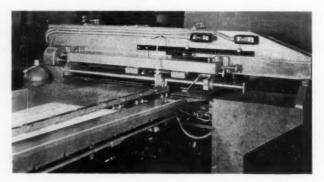
The Rite-Size Box Machine sets up for various sizes (in  $^1/_{16}$ " increments) so fast you'll find it difficult to believe. Over 7000 different size cartons can be made and any one of them can be set up in under sixty seconds.

#### **INVENTORY SAVINGS**

Because the Rite-Size Box Machine makes boxes as they are needed, only inventories of *flat corrugated board* need be kept on hand. The resulting savings in space, money and handling are enormous.

#### **OUTPERFORMS EXPECTATIONS**

In actual plant installations, the Rite-Size Box Macnine has proven more satisfactory than the claims which were originally made for it. Users praise its economy, versatility and the unique convenience of having almost any size corrugated carton at a moment's notice.



#### IT SET THEM ON THEIR EARS

The overall economy and fantastically fast set up time of the Rite-Size Box Machine were the talk of the AMA Packaging Exposition. You too will be amazed by this versatile new machine. Write today. Ask us to arrange a demonstration at your convenience. Department C, Jacob Industries Sales Corporation, Chrysler Building, New York 17, New York.



Pat. No. 2,353,419
 Additional Patents Applied For

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#### PACKAGING MACHINERY

FILLING MACHINES. Provided is de-tailed information on the Spes-Dee Model B filler, with general information on the other volumetric fillers in this line. Paul L. Kar-strom Co. (9-700)

SHEETER-GLUER AND SEALER. Specifications, illustrations, and other information is given on the Wrapade hand sheeter-gluer Model 10 and the Model B-12 thermal impulse sealer. Wrap-Ade Machine Co., Inc.

ELECTRIC LABEL DISPERSER. Illustrated brochure providing the reader with the advantages, features, and specifications of the Model E-3 Kum-Kleen electric label dispenser. 4 pages. Avery Adhenive Label

RECORDING AND PRINTING COUNTER. Features, uses, and specifications of the FMC aingle and multiple unit electric counter for on-the-spot or remote control. 4 pages. Food Machinery and Chemical Corp. [9-703]

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HOT PLATES AND HEAT SEALING IRONS. Uses, sizes, electrical specifications, construction, etc., are provided on the Corley-Miller hot plates and heat sealing irons for wrapping, banding and labeling. 4 pages. Illustrated. Miller Wrapping and Sealing Machine Co. (9-710)

PACKAGE FILLING MACHINES. Four bench models of the Whis-Packer for filling all types of free flowing and granular products are described, together with a description of the hopper feed conveyor. Frazier & Son. (9-711)

WRAPPING MACHINES. The Models I and FA-2 which wrap with cellophane and may be equipped with a Thermo-Print-Labler for applying labels to these packages are discussed. Illustrated. Package Machine 1988 (1988) 1

FLAME HARDENING. Detailed infor-mation on the advantages and methods of electronically controlled flame hardening for emboseing rolls and machine parts. 8 pages. Illustrated. Modern Engraving & Machine (9-713)

HAND GLUER. Function, dimensions, specifications are given of the ABC hand gluer; used to apply pressure to the flaps of corrugated shipping containers while the brushed-on adhesive sets. Illustrations. A-B-C Packaging Machine Corp. (9-714)

STATIC ELIMINATOR. Data on effective static elimination from paper, plastics, etc.,

with the Herbert Oxy Neutraliser Bar and equipment. Illustrated. 4 pages. Herbert Products Inc. (9-715)

WEIGHING MACHINES. Method of operation, scale and photoelectric controls, vibrator (sed, general appecifications, of weighing machines for semi-automatic batching, packaging, bagging, etc. The Exact Weight Scale Co. (9-716)

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HEAT SEAL PAPER. Pervenae (Thermo-Kote) heat seal paper for dry labeling is discussed with its selling opportunities and information on its use. Includes a chart of printing and varnishing tipe. 4 pages. Nashua Gummed and Coated Paper Co. (9-730)

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PLIOFILM IDENTIFICATION. Bulletin showing different types of Pliofilm logotypes and diamonds available free of charge in electrotype form. 4 pages. The Goodyear Tire and Bubber Co., Inc. (9-732)

PRINTING INES. Sample swatches of package printing inks together with identification for each. Crescent Ink and Color Co. (9-733)

CELLOPHANE FOR RETAIL STORE PRE-PACKAGING. Brochure gives hints as to the correct type of cellophane for various fruits and vegetables in the prepackaging field. Sylvania Division, American Viscose Corp. (9-734)

MOISTURE SET INKS. Reprint of an article giving concise yet comprehensive story of modern moisture set inks and their growing importance in the packaging field. International Printing Ink Div., Interchemical Corp. (9-735)

CELLOPHANE. Details are given on cellophane, its use in wrapping, machinery used for essling it. Includes samples and suggested applications. Text in English, Spanish and Portuguese. 40 illustrated pages. British Cellophane Limited. (9-736)

#### MISCELLANEOUS

CYLINDER CALCULATOR. Handy pocket calculator gives cylinder circumferences and related diameters for commercial rotogravure. American Type Founders. (9-737)

ACETATE FABRICATING. Illustrated breichure giving detailed instructions on fabricating Monaanto cellulose acetate Fibestos and Vuepak. 12 illustrated pages. Monaanto Chemical Co. (9-738)

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MARKING PROBLEMS. Informative brochure traces the development of this company and their service to the packaging field in terms of their machines for imprinting many different types of articles in many shapes, sizes and materials. Marken Machine Co. (9-740)

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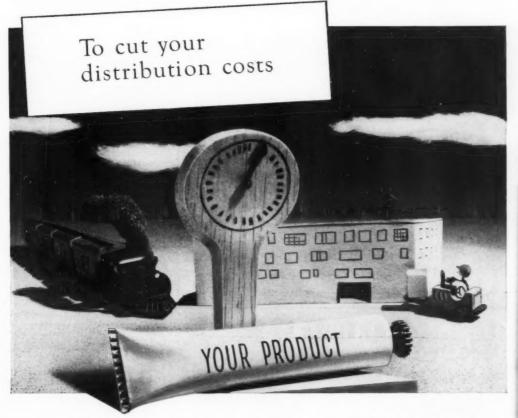
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You save freight, conserve warehouse space, reduce handling time—by packaging your products in tubes made by Sheffield. Sheffield Process tubes are light, compact, easy-to-handle... all qualities that cut your distribution costs right down the line!

Consider, also, that Sheffield alone offers you all these three services:

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Suitable for anything that's packaged in tuck end cartons. Production: 25-35 cartons per minute. Fast changeovers. Compact. Portable. Low cost.

Get details today. Write.



designed and built by ENGINEERING DIV., BRISTOL-MYERS CO.

William B. Sanford, Inc.

## West's Show opens

The third annual Western Packaging & Materials Handling Exposition and Conference opened in San Francisco's Civic Auditorium on Aug. 16 and by the close on Aug. 18 had apparently registered its third yearly success, reflecting the great interest in packaging development in the area west of the Rocky Mountains.

According to the count of badges issued, attendance during the three days of the Exposition totaled 5,100.

Uncertainty about the war and defense situation and its possible effect on packaging was evident among exhibitors and visitors, and—partly because of this and partly because of the failure of some of the Eastern suppliers to participate this year—the number of exhibitors and the exhibit area were both noticeably smaller than in the two previous years. However, exhibitors were obviously pleased with the size and caliber of the attendance. It was an eager, buying crowd, well representative of the large package-consuming industries up and down the Pacific Coast.

As in the National Show at Chicago last spring, emphasis on polyethylene packaging and on new equipment for handling polyethylene and other soft films was one of the highlights of the Exposition. Interest was high also in aluminum foil, improved shipping packaging and materials-handling

equipment.

Conference sessions morning and afternoon of the first two days presented a well-rounded program of unusually well-prepared papers. Among the highlights were talks by John Delmonte, Glendale packaging consultant, on the outlook for packaging films; by Fred Levy, president of Blum's Confectionery, San Francisco, on the type of colorful and unusual gift packaging practiced by his firm, and E. N. Burnett, chief engineer of the Western Division of Gerber Products Co., on the divisible shipping case pioneered by his company.

A complete report on the conference sessions will appear in the Octo-

ber issue.

Sentiment at the show seemed to be strongly in favor of a plan to hold the Western event every two years hereafter, going to Los Angeles in 1952 and back to San Francisco in 1954, and alternating between the two cities thereafter. No official announcement on this had been made by press time, however.

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Simple design for low cost maintenance! Precision engineered for high efficiency!

Model GR GRAVITY **FILLERS** 

5 to 12 Spouts



- For all types of foamy and still
- Spouts have no packing, eliminating danger of contamination.
- Minimum overflow and absolutely drip-proof.
- No pump-no motor-minimum number of moving parts.
- Fills all containers from fractional ounce to 2 gallons.

Write for Catalog No. 22

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- \* Quickly adjustable for various size and shape containers.
- \* Furnished with distribution
- \* Production from 50 to 80 frac-tional ounces and up to 24 gallons per minute (based on water). Other sizes proportion-ately.

Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment

# Fill Any Type— Any Size Container

- from smallest to five pounds - accurately within  $\frac{1}{16}$  to  $\frac{3}{16}$  ounce.

# HIZ-PACKER

SPECIALLY DESIGNED FOR DRY PRODUCTS

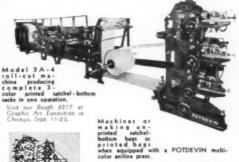
Send dry product sample and package for complete details and price.

> Bench Model Whiz-Packer Floor Model Also Available



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Sack (Satchel-Bottom) PAPER BAG MACHINES



Can be equipped with patented double differential compensator and electric eye for converting pre-printed paper. Quick changeover for wide range of sizes for making single or multi-wall poulbry, charcoal, potato and flour sacks as well as shopping begs. DIL INK PRESS

Consult our engineers on any problem. No obligation. Literature on request.

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Designers and manufacturers since 1893 of equipment for Bog Making, Printing, Coating, Cliving and Labeling.

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Flat and Square (Tucked) PAPER BAG MACHINES



Model 2-102 A high speed flat and square multi-color printing bag machine.
POTDEVIN Flat and Square machines
make grocery, notion, milinery, shipping
container and large specialty bags,
machine is adjustable to make a large
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Consult our engineers on any problem. No obligation. Literature on request. Visit our Booth §217 at Graphic Arts Ex-position in Chicago, Sept. 11–13.



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# **NOW!** FOLDED PAPERS COLLATED FASTER THAN EVER BEFORE

In proper sequence, this unique automatic unit (which was designed primarily for the greeting card industry) collates as many as twelve items of similar size into a single bundle. The bundle is jogged square and presented to a cellophane wrapping machine or a cartoning machine.

Speed: 6,000 collated bundles every hour. Size range:  $3" \times 3"$  to  $7" \times 7"$ . Moderately priced. Send for details now.

The John G. Herrmann Co. 25 Stewart Street Floral Park, New York

#### Manufacturers' literature

When the Manufacturers' Literature page of Modern Packag-ING was introduced 15 months ago, we were frankly overwhelmed by the number of requests received. As a result, we were insufficiently prepared to process the enormous volume of mail as rapidly as we would have liked. This has now been corrected. A new system has been scientifically planned for handling your requests and is in operation right now. When the return post card you fill out is received, it is processed in a minimum of time and your name and address is quickly forwarded to the company concerned.

A recent survey indicates that this department is used regularly by a large majority of Modern Packaging readers. To those who have not yet taken advantage of this service, a cordial invitation is hereby extended to do so. The feature appears in this issue on pp. 187–188.



## **CRCO-NEW WAY**

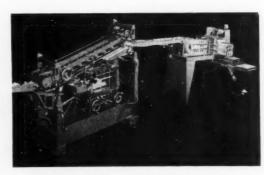
**Continuous Label Feed** 

# Labeling Machine

Heavy-Duty High-Speed for All Cylindrical Containers

Introducing the new Heavy-Duty, High-Speed Labeling Machine with a high-level discharge, thus permitting a direct gravity feed into some models of casers. It often eliminates the need for an elevator. Precision-built—lower operating costs. Has capacity of 300 or more containers per minute. Continuous Label Feed available on all models.

Write for complete details, specifications and prices.



Model E Labeler Feeding Into Model A Caser





# Look at the

The very paper for which you are searching may be right in our stock.

Over 1,000 Packaging Papers to choose from.



## War and packaging

(Article continued from page 101) 000 tons and in the first half of 1950 at an annual rate of about 5,000,000 tons, just above the 1947 peak.

Production of folding boxes so far indicated for 1950 is 2,100,000 tons, 50% above 1940, but somewhat below the 1947 peak of 2,257,000 tons. Output of set-up boxes has gyrated up and down since 1940, as shown in Table II. Set-up production in 1950 is indicated as 601,000 tons-the same as 1949-but figures for the peak year of 1942 indicate that the industry has a capacity of at least 997,000 tons. Thus, if the board is available, there is a comfortable reserve capacity in the set-up box industry to absorb any enforced switches from plastic and metal.

Department of Commerce figures for total paper and paperboard production show 14,500,000 short tons in prewar 1940, 20,300,000 short tons in 1949 and, at the time the new war started, a new peak annual rate of 23,000,000 tons.

The outbreak of fighting in Korea, however, seems to have stimulated the paper mills to greater efforts. According to figures of the American Paper & Pulp Assn., paper output for the week ended July 29 was at 106.8% of rated capacity, as against 102.5% in the preceding week and only 84% a year ago. Paperboard production figures for the same periods were 96%, 95% and 80%, respectively, and unbleached kraft figures 96.7%, 95.4% and 66.5%.

#### **Plastics**

The biggest single new factor in the packaging field since World War II is polyethylene. That plastic is also one of the hottest new items in the category of military requirements -not only for packaging (where it has the unique ability to withstand a temperature range from minus 50 to 150 deg. F., now so essential), but also in huge quantities for electronic applications.

Booming civilian demand for polyethylene bottles and polyethylene film had created a shortage of resin even before the new military program was launched. Prospects for rapid expansion of resin facilities, beyond what is already under way, are dim. Many of the polyethylene applications in civilian packaging, such as the popular squeeze bottles, would in wartime cer-

## "PROFIT SEALERS" FOR Any HEAT SEALING MATERIAL

Polyethylene, Pliofilm, Vinyl and other special films involve special problems and require special equipment. WE HAVE SUCH EQUIPMENT.
 Please specify materials to be sealed.

The New and Improved



"STOR-PAK"

with Adjustable \$6.95

Teflon covered, \$1.00 additional. If to be used for Polyethylene, Phofilm or similar material, so state and we will furnish proper temperature range iron.

"CLAMCO" for sealing ready-made bags \$7.95



Equipped with thermostat control—can be regulated for scaling such films as Cellophane, Pliofilm and Polyethylene. Scaling surface of jaws 6" x 2", covered with Teflon to prevent sticking.



For sealing on a production basis. Sealing plate mounted flush. Ideal for sealing ness, ing trays, B.F.D. and other packages. End seal adapter for straight sided cartons and trays. Adjustable thermostat. Available without table top for installing in your own table. Tellon covered, 83.09 additional.

"CRIMPMASTER" (bench type)



For extensive

For extensive operations. Sealing jaws <sup>7</sup>/<sub>5</sub> x <sup>7</sup>/<sub>5</sub> x <sup>8</sup>/<sub>4</sub><sup>4</sup>, Will form positive air-tight seal on all cellophane. Other models for sealing other types of film. Available also with longer jaws up to 24 inches. Write for details.

ALL PRICES F. O. B. CLEVELAND ALL MODELS FOR 115 VOLTS A.C.

## CLEVELAND LATHE & MACHINE COMPANY

Cleveland 15, Ohio

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tainly be placed in the luxury class. Therefore, the polyethylene boom in packaging seems certain to be nipped—temporarily, at least—within the next few months.

One large supplier says, however, that he expects to meet all orders for both squeeze bottles and film for some time to come. The two producers of the basic polyethylene resin paint a somewhat darker picture.

Word from Washington is that Ordnance and Signal Corps applications have first call on polyethylene and already an order for "several hundred thousand miles" of combat communication wire, coated with 14 lbs. of polyethylene per mile, have been placed. That alone will put quite a hole in the visible supply of polyethylene resin.

The present supply of polyethylene resin is estimated at 5,000,000 lbs. a month. Du Pont is currently stepping up production and may soon add materially to this figure. Bakelite has started a new plant that should come in by mid-1951 or sooner. All this was figured merely to meet peacetime demand, and military requirements obviously will add to the load.

It is certain that the packaging branches of all three Services will put up quite a fight for a share of polyethylene, for they consider it the key material for arctic packaging. In the last war the basic barrier material for Method-II packaging was a butyrate coating on lead foil, laminated with asphalt to kraft or scrim. This had many drawbacks. It was heavy and stiff and tended to crack at low temperatures. It was difficult to seal. It is due to be replaced by a much lighter and more widely useful lamination of aluminum foil, polyethylene (either film or a coating) and scrim or kraft backing.

The Medical Corps used quantities of plastic bottles in field kits in the last war, even though they were then only in pilot-stage production. Now that volume blow-molding production facilities exist, the Services likely will be a big priority customer.

The prospects for molded and sheet plastics depend largely upon the supply of chemical ingredients, some of which may quickly become scarce. Molded plastics are used in packaging chiefly in the form of closures and the phenolic materials generally employed in utilitarian closures are less subject to scarcity than acetate and polysty-

The styrene which goes into the

polystyrene may be very short if the synthetic rubber plants begin to start up again.

#### Cellophane and other films

As for the general picture on packaging films, here's what R. L. Van Boskirk has to say in the current issue of *Modern Plastics*:

"Industry authorities claim that in the normal course of events there would have been a demand for 500,000,000 lbs. of cellophane, acetate film, polyethylene, Pliofilm and saran thin films within the forseeable future. Today a reported production of 240,000,000 lbs. of cellophane is insufficient to supply demand for that product alone. Acetate film production under 0.003 gauge was nearly 8,000,000 lbs. in 1949-has been running well above that rate in 1950 (about 3,700,000 lbs, in the first four months). Polyethylene film production was near 12,000,000 lbs. in 1949, but figures for 1950 in that and other films named above are not published. But one thing is sure-demand for thin film, primarily for packaging, is far above supply and will probably remain that way for some time to come.'

Acetate and Pliofilm were widely used in military barrier materials in



# I.C.I. Polythene film...



# cuts packaging costs

Loose liners of 'Alkathene' (polythene) film—chemically resistant and moisture proof—make it possible to use conventional drums, kegs and fibreboard containers for carrying hygroscopic powders, corrosive liquids and pastes. Packaging costs are cut, as cheaper and lighter weight containers which need not be returnable, can be used, with consequent saving in transport and re-use charges.

'Alkathene' is the registered trade mark of polythene manufactured by I.C.I.

IMPERIAL CHEMICAL INDUSTRIES LIMITED PLASTICS DIVISION, WELWYN GARDEN CITY, HERTS. ENGLAND



the last war. It is not known to what extent they may now be replaced by polyethylene and other newer materials.

Although cellophane has little direct military use, its production is apt to be hampered in wartime by shortages of glycerine. However, barring that, and if the big new Olin Industries plant now under way at Pisgah Forest, N. C., is completed and permitted to run next year as planned, there may be some relief the end of next year.

#### Timber and glass

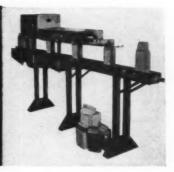
Our situation in timber supplies should be studied if only because it was more dangerous than most people realized in the last war. According to one authority, 50% of our timber harvest was going into packaging (either as box lumber or pulpwood) on V-J Day and if the war had continued another year there wouldn't have been enough timber to keep our Armed Forces going. This was due not so much to the lack of timber resources as to a shortsighted draft policy which took too much manpower out of the forests. Box lumber, in addition, was limited by a shortage of kiln capacity. The Department of Defense estimates forseeable requirements of lumber, between now and June 30, 1951, will not exceed 1,500,000,000 board feet.

Glass is the bright hope of those packagers who may be forced out of metals and plastics. Apparently ample production capacity exists and glass uses practically no strategic materials—although of course glass containers do need metal or plastics for closures. The only material bottlenecks in glass production during the last war were, toward the end of the conflict, shortages of soda ash and scarcity of refractory brick, needed for periodic relining of the furnaces. There is now a temporary shortage of soda ash, due to a strike.

Glass-container facilities were so enormously expanded during and after the war that it appeared for a time that they had outstripped demand. From a production of just over 50 million gross in 1939, the industry rose to 105 million gross in 1945 and to 115 million gross in 1946 and 1947. However, packaging consumed well under 100 million gross in both 1948 and 1949, and although the 1950 rate so far is higher, there is still a comfortable margin to work on. Present capacity is estimated at 140 million gross.

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Why struggle along with antiquated methods, when the Fry Model CSG automatically makes a double-folded sift-proof heat seal in the top of any heavy weight paper bag. The first fold is securely heat sealed; the second is glued for extra safety. Perfect for granular or fine products such as foods, chemicals, insecticides and the like.

Bags handled include polyethylene and pliofilm lined, and those with thermoplastic top sealing bands. Simple adjustments for bags of various heights.

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PLASTIC BAGS

# Cake

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- Fracture-Proof
- Unaffected by temperature changes

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CANADA: Transparent Paper Products, Ltd., Montreal, Quebec

## 12th Packaging Institute Forum

(Article continued from page 132) men and packing-room foreman who want to do a better job of line packaging. Panel members have been selected from four fields of packaging: glass lines, can lines, carton lines and squeeze-bottle lines.

#### Technical committee meetings

Anyone registered at the Forum may attend Technical Committee meetings as a visitor-provided there is room to get in.

Two of these meetings will be of particularly wide interest. The Drug and Pharmaceutical Committee holds its annual seminar, expected to draw about 300 persons from this field.

The Printing Committee will hold its organization meeting, adopt an agenda, choose its own chairman and discuss its plans for the coming year. From advance indications there will be at least 50 persons present for the organization meeting. Written invitations have been sent to all in the Packaging Institute who are likely to be interested.

A glance at the printed program will tell what other meetings are scheduled and the final printed program available at the Forum will tell where they will be located.

#### Registration and reservations

All who attend the Forum of the Packaging Institute are requested to register in advance by writing to the Packaging Institute, 342 Madison Ave. New York 17, N. Y., for the proper forms to save time at the registration desk on the day of arrival.

Advance registration also enables the Institute to provide meeting rooms of adequate seating capacity.

The Hotel Commodore has blocked off 250 rooms for use of visitors attending the Forum of the Packaging Institute and members are urged to make their hotel reservations on the form they can obtain from the Packaging Institute. If, however, a member prefers to make his own reservation, he should tell the hotel it is for the Packaging Institute.

"Packaging in These Difficult

Times" will be the theme of the meeting. The board of directors meets Sunday, Oct. 22, at 1:00 p.m. The three-day program follows:

Monday Morning, Oct. 23

9:00 a.m. Registration and reception by officers and former directors. General Session, Charles L. Barr presiding.

10:30 a.m. Opening Address — Charles L. Barr, President of Packaging Institute, Opportunities and Obligations.

11:40 a.m. Short business session to elect directors.

11:50 a.m. Address — Packaging Management Needs Recognition.

12:30 p.m. Luncheon—Containers in a Semi-War Economy, Roy F. Segur, In Charge of Containers and Packaging Planning, National Security Resources Board, Washington, D. C.

Monday Afternoon, Oct. 23

2:30 p.m. Symposium-Packaging



Problems in the Near Future, H. T. Holbrook, presiding.

 Outlook for Packaging Supplies, Lee R. Forker, Quaker State Oil Co. and panel.

Methods of Procurement Used by Department of Defense. Speaker to be announced.

Government Procurement Policies-Industry's View. Speaker to be announced.

5:30 p.m. Meeting of board of directors to elect officers.

Tuesday Morning, Oct. 24. (Two Concurrent Sessions)

9:30 a.m. Reproduction and Package Printing, E. H. Balkema, Colgate-Palmolive-Peet Co., presiding,

 Development of Package Specifications and Performance Tests — Edgar E. Rumple, in charge of Specifications and Control of Packaging Quality, Merck & Co., Inc.

 Plate and Cylinder Making — Jack Lomax, Reilly Electrotype Co.

 Ink Making—George Welp, International Printing Ink Division, Interchemical Corp.

 Making and Printing of Paper and Board Stock—Walter Sooy, Vice President, Gardner Board & Carton Co.

5. Control of Packaging Quality— Edgar E. Rumple, Merck & Co., Inc. 9:30 a.m. Petroleum Products

Packaging. (All day session.) R. Chester Reed, Texas Co., presiding.

 Mechanical Handling and Warehousing of Small Packages - F. M. Landon, Sun Oil Co.

2. Economics of Stenciling, Labeling and Marking. (a) Labels—X. R. Smith, Atlantic Refining Co. (b) Decalcomanias — Edward Thomas, Shell Chemical Co. (c) Stencils — Speaker to be named.

3. Statistical Control of Filling-A. R. Dismukes, Gulf Oil Corp.

(Session continued in afternoon.)

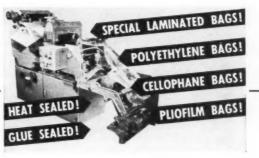
Tuesday Afternoon, Oct. 24. (Two Concurrent Sessions)

2:00 p.m. Petroleum Products Packaging. R. Chester Reed, presiding.

 Export Shipping Cases for Petroleum Products—Paul Paulsen, Wm. H. McGee Co.

 Packaging for the National Military Establishment by the Petroleum Industry — Speaker to be announced.

2:00 p.m. Technical Session,



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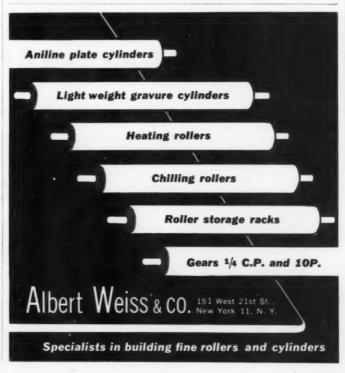
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Kenneth R. Marvin, Eastman Kodak Co., presiding.

- Performance of Shipping Containers.
  - 2. Electronics in Packaging.
  - 3. Scuff Resistance.
- Testing for Impact Fatigue –
   Robert de S. Couch, General Foods
   Corp.
  - 6:00 p.m. Reception and Cocktails. 7:00 p.m. Banquet Speaker to
- be announced.

-Wednesday Morning, Oct. 25. (Two Concurrent Sessions)

9:30 a.m. Technical Session. Dr. L. E. Simerl, Marathon Corp., presiding.

1. Rapid Graphical Method of Measuring Moisture Equilibria — Arthur H. Landrock, Massachusetts Institute of Technology.

2. Method of Measuring Organic Vapor (Odors) Permeability Through Packaging Films — T. J. Muldoon, General Foods Corp.

3. New Method of Measuring Pore Size in Packaging Materials — J. N. Sivertson, Johnson & Johnson.

9:30 a.m. Production Session. Seminar on High Speed Packaging — John A. Warren, Engineering Department, American Home Products Co., presiding. (This session is primarily for production men and packing room employees.) Speakers to be announced. 1. Glass Lines. 2. Carton Lines. 3. Squeeze Bottle Lines. 4. Tin Can Lines.

12:30 p.m. Luncheon. All technical committees and guests. Speakers—C. L. Barr, President of Packaging Institute, and R. de S. Couch, retiring General Chairman of Technical Committees. Introduction of new General Chairman.

Wednesday Afternoon, Oct. 25 Committee Seminar and Meetings

2:15 p.m. Drug and Pharmaceutical Committee. H. Earl Nack, Sharp & Dohme, Chairman.

 Screw-Cap Problems – Carl B. Burnside, Eli Lilly Co.

2. Important Factors of Glass Breakage-Speaker to be announced.

3. Inspection of Incoming Packaging Supplies - Fred Bither, Upjohn Co.

 Export Packaging — Dr. John
 Bird and R. J. Hennesy, Lederle Laboratories, Shelf Packs-Arthur R. Schettel,
 R. Squibb & Sons.

 Package Style Designed to Facilitate Resale on Prescription in Original Containers—Dr. David Ashkenaz, Wyeth, Inc.

Unusual Foreign Packages-H.
 Earl Nack, Sharp & Dohme.

Organization meeting of the Package Printing Committee, will be held also Wednesday afternoon with Charles O. Kendall, E. R. Squibb & Sons, acting as temporary chairman. This is the first full meeting of this committee. Anyone is welcome provided the Packaging Institute receives advance notice so that ample space is available. Twenty-two reservations have been recorded to Aug. 15. The committee is to choose a permanent chairman, adopt a statement of policy and define its mission and objectives, plan the next meeting and set up task groups.

Other Technical Committee meetings include those on Paper, Films and Foils, Glass Containers, Shipping Containers, Parenteral Closures, Food, Petroleum, Packaging Management, Glossary, Yield Chart, Package Dimension, Packaging Education, Advisory Service, Package Users' Guide.

# FOR LOW COST-HIGH CAPACITY Product Packaging Use GLOBE-KNAPP PACKAGING MACHINES



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## **Everything but the squeal**

(Article continued from page 95) its protective properties are enhanced by the presence of an attached inner liner of transparent film or opaque greaseproof paper. Properties of the liner are varied to meet product requirements. The double-waxed paperboard surface of the carton is solid white, providing an ideal printing surface

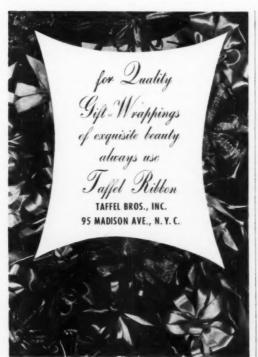
Packaging time with this unit package is said to be approximately half that required for multiple-unit containers, resulting in reduced labor cost and increased production. Product to be packed is centered on the window panel of the blank (see illustrations) after which the end panels are folded, covering the meat with the liner. Then bottom panels are folded over. Final operation entails locking the carton with the positive lock, which is easily engaged. This type of carton is made in individual designs to packer specifications and is also available in stock-printed designs for hamburger, ground beef and other meat products.

Packers are showing increased interest in equipment which will simplify their packaging activities and help to control packaging-material inventories. An example of this trend is found at Stark, Wetzel & Co., Inc., Indianapolis, which is now producing its own packages for pure pork sausage from printed roll stock. The attractive 1-lb. package so formed is of doublewall, gusseted construction and affords excellent product protection. Printing is in black and red on a bright yellow background. Seams of the cellophane package are heat sealed throughout with 1/2-in. overlaps. Registration is provided by electric-eye control and the bag-making unit forms the packages automatically, stacking them in the receiving container ready to be filled with product.

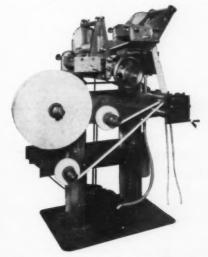
The virtual revolution in liversausage packaging in recent years shows that packers are becoming increasingly conscious of the need for improved packages which will meet consumer requirements and lend themselves to more effective selling.

Prior to the war, this popular type of product was usually stuffed in hog bungs, which made a perfectly satisfactory casing but had the disadvantage of being opaque. Following the war, transparent casings enjoyed wide adoption because of their ability to eliminate shrinkage and slime formation and the fact that they made possible lower casing costs and smaller inventories. Most recently, a 10-oz. consumer-sized saran casing for liver sausage, introduced by Oscar Mayer & Co., has been adopted by others.

The Oscar Mayer liver-sausage package hit the market in the spring of 1949. It was developed by this meat-packing firm in conjunction with the supplier of the basic film material. The Mayer organization developed its own equipment to form the required casing sheet material and assisted in arriving at the proper formulations for this particular packaging job. The Oscar Mayer unit package for liver sausage made an immediate hit, with the result that saran casings



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#### MACHINERY FOR SALE

1 MODEL A3901-24 CECO Adjustable Carton Glue Sealing Machine. Adjusts to depth of 24 inches. Has Automatic Carton Transfer Mechanism to permit filled but unscaled cartons to come to machine from long assembly belt. Includes Morot—½ H.P.—550 V=60 Cycle—3 Phase. New 1947, used very little. Frice \$9390. American Tissue Mills, Holyoke, Mass.

FOR SALE: 1—Standard Knapp #429 self-adjusting Gluer-Sealer, minimum 5½° high, 7½° wide, maximum 10° high, 13° wide, 23° Compression Unit. Priced at less than half new out. For the self-adjusted high proposed at less than half new out. For the self-adjusted high proposed at less than half new out. For the self-adjusted high proposed at less than half new out. For the self-adjusted high proposed at less than half new form that high proposed high p

EQUIPMENT FOR SALE: World Semi-Automatic, Model S, purchased new from Economic Machinery in May 1950 and used only 30 days. Equipped with portable truck arrangement. Also 35½\* Delt conveyor, 30 feet 6\* long, 5 h.p. motor and controls. Can ship immediately. Hadiator Specialty Company. 1790 Bowd Road, Charlotte, N. C., Telephone 3-3131.

FOR SALE—Two Economic Machinery Company labellers, 120 per minute capacity, Models HSX and HS—both in operating condition. For further details contact The Calvert Distilling Co., Box 208, Baltimore 3, Maryland.

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FOLDING PAPER Box Specialist with creative ability, now in packaging industry, desires position as good will representative for paper box manufacturer. Has ability to specify technical needs for special requirements of the property of the

LAMINATION, EXTRUSION, Conting. Production and development. Experienced as technical director in both electrical and chemical fields. Textiles, papers, films and flexible metals industrial and defense packaging materials and products including pipe and thin polyethylene film. Inorganic and organic resins and rubbers. Can be available for two days per week on permanent basis. Reply Box 999, Modern Packaging.

PROCUREMENT AND Package Development Executive—Seeks connection in similar capacity with progressive concern in Midwest. Creative ability. Extensive background in purchasing and package development embracing Cosmetics, Drugs and Packaged Consumer Goods for domestic and foreign markets. Capable administrator, with thorough knowledge of sources. Salary open—Presently associated with New York concern. Prefers change. Box 104, Modern Packaging.

#### HELP WANTED

SALES REPRESENTATIVES—Manufacturer of well-known specialty closure for cans and glass offers attractive proposition to men now calling on the packaging trade. Leads furnished from national advertising. Territories available include Kansas City and St. Louis, Missouri, and Minneapolis and St. Paul, Minnesota. Box 997, Modern Packaging.

DESIGNER of Automatic Packaging Machines. Preferably of over-wrapping type-Frank Bilek, The Globe Company, 4000 So. Princeton Ave., Chicago 9, Illinois.

SALESMAN WANTED to represent firm laminating and coating paper, foil, films, etc., to cover New York Metropolitan area and adjacent territory. Experience in this field desirable but not necessary. Salary basis. Complete resume including salary desired in first letter, please. Box 100, Modern Packaging.

WANTED: DISTRIBUTORS to sell new line of pressure sensitive Tape Dispensers. This industry is expanding very rapidly. Box 105, Modern Packaging.

WANTED: CHEMIST with Masters Degree for Research Department. Large middle west company, requires a man with complete knowledge of platic films, papers, resin adhesives and coatings. This man will direct the developing of combination or the developing of combination or the developing of combination or the developing of combination or the developing of combination or the developing of combination or the developing participations of the developing various packaging materials for overseas shipping, and moisture barrier materials. Please furnish resume of experience and qualifications. Salary open, will be commensurate with ability. Box 102, Modern Packaging.

WANTED: Ambitious Salesman experienced in folding eartons. Excellent opportunity to advance to Sales Manager. Midwest Location. Give Experience and Personal History in reply. Box 975, Modern Packaging.

#### MISCELLANEOUS

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polysstyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

IP TO 50" reil sheeting & slitting, Up to 42" roil laminating of paper, card-total, ferica and roil and foreing of flocked rayon velour paper, grey, tan, pink, brown, aqua, light green and emerald green. Can be sheeted and laminated to your specifications. Write or wire for samples and quotations. Services Unlimited, Dept. 1, 547 West 27th Street, New York 1, N. Y. WI 7-8115.

MANUFACTURERS REPRESENTATIVES— Wanted by Eastern firm to sell newly developed bench type, foot operated, electronically controlled, Thermal Impulse heat scalers for Polyethylene and other films. All territories open except N. Y., N. J. & Conn. Write giving all details of territory overed, other lines and pertinent data about yourself. Box 10s, Modern Fackaging.

FOR SALE: Approximately 5 ton Cellophane 450 MSAC Red 84G and 450 MSAT 84G in various widths to 16 inches. Give your best price. Box 103, Modern Packaging.

WE WILL BUY!... any of your excess bottles and bottlecaps—regardless of size or quantities. Glass Container & Cap Outlet Company, Inc., 876 Broadway, New York 3. Phone OR 7-2420.

CELLULOSE FILM for Sale in sheets only 300 MST and 450 PT. Prompt deliveries. Also kraft in counter rools up to 36 inch MF No. 2 and car liner stock. Forest Products (Canada) Corp., 264 Hospital Street, Suite 110, Montreal 1, Canada. Telephone, Marquette 8448.

WANTED—EQUIPMENT: Used "Capem" Capper S-1-F Model, Resins Automatic Single Head Capper, or Title Cap Single Head Automatic Capper. Must be in good mechanical condition. Write fully, giving price, etc. Also ampackaging equipment suitable and the "B" style cans. Write Box 101, Modern Packaging.

FOR SALE—immediate delivery—substantial quantities 18 inch, 20 inch, 22½ inch 120 FF Pliofilm packed in original containers. Box 996, Modern Packaging.

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are now available to other packers from several saran licensees. Some of these casings are sold in the form of seamless tubes and they, like the Oscar Mayer package, are tied at one end, then stuffed on standard stuffing equipment and tied at the open end. One manufacturer offers the casing in the form of a seamed package with one end already sealed, making but one tie necessary.

Saran made possible a transparent casing through which the product could readily be seen by the prospective buyer. In addition, this material guards the stuffed product against oxidation and loss of moisture, which means that the retailer need have no fear of product spoilage or shrinkage. The handy 10-oz. size provided a convenient "pick-me-up" package which won immediate favor when sold directly from self-service cabinets.

The Oscar Mayer liver-sausage package has used a printed wraparound label since it first appeared on the market. When the product was introduced, a folded parchment insert slipped beneath the label illustrated how the package was to be sliced and the cut-off end or "heel" pressed back

in place to seal the package. Some packers, instead of using a printed label, have adopted saran casings which are directly imprinted.

From the packer standpoint, an essential feature of the saran casing is the fact that it permits the sausage to be cooked after the stuffing operation, directly in the casing. During this process, the casing shrinks tightly around the product, producing an attractive package. It is interesting to note that the saran casing is now also being adopted for various types of sandwich spreads by several packers, providing a profitable market outlet for end portions of high-grade meat products which are "orphaned" when luncheon meats are sliced for in-plant packaging.

It is clear from this survey that the meat industry in recent years has turned increasingly to better, more convenient packaging in the continuing competition for the consumer's food dollar. Thanks to improved packaging materials and equipment, tuture developments may be expected at an accelerated tempo.

CREDITS: Figs. 1-4-Packages and equipment, Flex-Vac Division, Standard

Cap & Seal Corp., New York. Fig. 6-"Pick Pak" packages, Marathon Corp., Menasha, Wis. Fig. 7-"Moldart" equipment distributed by Allbright-Nell Co., Chicago; Pliofilm frankfurter wrap, Shellmar Products Corp., Mt. Vernon, Ohio. Fig. 9-Saran, Dow Chemical Co., Midland, Mich. Fig. 10-Pliofilm, Goodyear Tire & Rubber Co., Akron, Ohio; labels, Avery Adhesive Label Corp., Monrovia, Calif. Figs. 12-13-Cry-O-Rap, Dewey & Almy Chemical Co., Cambridge, Mass. Fig. 14-Bag, Central States Paper & Bag Co., St. Louis. Fig. 15-"Cel-O-Fold" carton, Interstate Folding Box Co., Middletown, Ohio. Fig. 16-"Wallet-Pak" cartons, Marathon Corp. Fig. 17-American Coating Mills, Division of Owens-Illinois Glass Co., Chicago.

ADDENDUM—The Chicago Carton Co., rises to challenge the claim of Turner & Pease, Inc., Seattle, to being the first to introduce a half-pound butter package. (See "Half-Pound Butter," July, 1950, p. 132.) William C. Smith, packaging engineer for Chicago Carton, points out that his company produced not only a half-pound carton, but also a quarter-pound carton, for Beatrice Creamery Co. 15 years ago. These packages were, however, discontinued during the war.





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### QM procurement

Quartermaster procurement agencies are making every effort to make wide dissemination of information regarding Army purchases of supplies and contract awards, Brigadier General Everett Busch, Commanding General of the Chicago Quartermaster Depot, said today. "Suppliers of nonperishable foods and general supplies for the Armed Forces, as well as manufacturers of components, ingredients and packing and packaging materials are urged to have their names added to the appropriate mailing lists to receive Invitations for Bids if they have not already done so."

The bidders' mailing lists are open to all responsible suppliers without exception and Invitations for Bids are mailed to interested suppliers whenever a procurement is to be made. "It is in the national interest," said General Busch, "that the bidding be as competitive as possible and on as wide a scale as possible.

"The Chicago Quatermaster Depot, 1819 West Pershing Road, will be glad to provide complete information regarding Invitations for Bids and contract awards to commercial agencies

upon request." In addition, the Quartermaster Corps makes bidders' information available through the 42 field offices of the U. S. Dept. of Commerce cooperating with 2,200 Chambers of Commerce, Boards of Trade, trade associations and State Employment Agencies. A weekly synopsis of all Invitations for Bids and of awards made by the Department of Defense is provided to these groups and to other Government agencies.

General Busch stated that some suppliers were under the impression that once their names have been placed on the bidders' mailing lists to receive Invitations for Bids they remained there permanently. However, this is not the case. If a supplier fails to respond to three consecutive Invitations for Bids, it is assumed that he is no longer interested and his name is automatically deleted from the list, Separate mailing lists are maintained for non-bidding companies interested in supplying component materials to successful bidders. These non-bidding suppliers receive single information copies of Invitations for Bids. In general, no deletions from these separate lists are made, since a response to these invitations is not expected.



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